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Student Desire to Stay in a Program: The Influence Of Faculty Caring and Cultural Identification With Faculty

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STUDENT DESIRE TO STAY IN A PROGRAM: THE INFLUENCE OF FACULTY CARING AND CULTURAL IDENTIFICATION WITH FACULTY

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ABSTRACT

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The Future of Nursing 2020-2030 report (National Academies of Sciences, Engineering, and Medicine, 2021) stated nurses should reflect the characteristics of the people they serve to ensure individuals receive culturally competent and equitable health care. Over the next decade and beyond, the U.S. population will become more racially and ethnically diverse, but the nursing workforce has not kept pace with the changing demographics (American Association of Colleges of Nursing, 2023). To increase diversity among nurses, nursing schools need more diverse graduates from prelicensure nursing programs, but attrition is greater among students with diverse racial, ethnic, and cultural backgrounds (Barbé et al., 2018; Harris et al., 2014; Veal et al., 2012). Nurse educators must identify strategies to support diverse student populations to promote retention and successful program completion for all students. Factors that support student retention are complex, but major influences might include student's cultural identification with their faculty and student perception of faculty caring.

The purpose of this quantitative study was to empirically analyze the extent to which prelicensure nursing students' desire to stay in their program of study was explained by students' cultural identification with their nursing faculty and students' perception of faculty caring. Two theoretical frameworks informed this study: Madeleine Leininger's culture care theory

(Leininger & McFarland, 2006) and Jean Watson's (2008) theory of human caring. A conceptual model influenced by Leininger's culture care theory and Watson's theory of human caring was proposed to guide the research.

The sample was drawn from three baccalaureate programs located in differing geographic regions of the United States, all of which were minority serving institutions. A convenience sample of 280 prelicensure nursing students completed an online structured survey. Variables were measured using the Caring Factor Survey—Caring of Faculty (J. Nelson, personal communication, June 22, 2021) and two visual analogue scales.

Multinomial logistic regression and Spearman's correlation were used to answer the two research questions. The predictor variables, faculty caring ($p < .001$) and identify with faculty ($p < .001$), significantly contributed to the final model. Additionally, a statistically significant weak to moderate positive correlation ($r_s = .23$ - $.38$, $p < .001$) was found among each Caring Factor Survey—Caring of Faculty statement and students' cultural identification with faculty.

Findings from this study demonstrated that both cultural identification and faculty caring significantly contributed to students' desire to stay in a program, but perception of caring exhibited a greater influence. The conceptual model proposed for this study was supported by these findings. Although faculty and students were each influenced by their cultural lens, the transpersonal caring moment that occurred when both individuals entered a faculty-student caring relationship radiated and influenced student perceptions. Caring student-faculty relationships could overcome cultural differences. Strategies to promote student perception of faculty caring might have a positive impact on prelicensure nursing student retention and, consequently, resources could be directed to influence student success.

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CHAPTER I

INTRODUCTION

Caring for the individual, family, group, and environment is a central focus of nursing (Watson, 2012). Nursing cherishes the wholeness of each person, respects human dignity, and understands a patient's needs (American Nurses Association [ANA], 2022). Nurses are responsible for ensuring a person receives the best care regardless of who they are or where they might be (ANA, 2022). By demonstrating a caring, knowing presence, the nurse identifies what is meaningful for another before deciding on a course of action. This appreciation of meaning embodies relationship-centered care. The relationship between the nurse and patient is potentiated by caring, which facilitates health and healing. Without the nurse-patient caring connection, patient outcomes are not met.

A patient's perception of nurse caring includes the behaviors, attitudes, and values of the nurse (Cara et al., 2020). Physical acts, connection, and knowing are all elements of the caring connection. Nurse caring interactions positively affect well-being, dignity, and healing of the patient (Duffy, 2005). Conversely, patients report negative results when caring is lacking including feeling helpless, uncomfortable, anxious, unsafe, and frightened (Duffy, 2005). Therefore, caring is an essential component of the daily work of nurses.

Madeleine Leininger's (Leininger & McFarland, 2006) theory of cultural care diversity and universality describes the impact of culture on health. Culture includes the learned, shared, and transmitted values, beliefs, and norms that guide thinking, decisions, and actions. Leininger stated that people are born, live, and die with specific cultural values and beliefs. Additionally,

historical and environmental contexts influence an individual. As a result, Leininger stated that caring needs to be culturally specific and appropriate. Incorporating cultural knowledge is essential for nurses when demonstrating caring and embodies more than meeting the physical and emotional needs of patients. Leininger stated that patients might feel angry, frustrated, and misunderstood if the nurse does not understand their culture, and this influences patients' satisfaction with care and health promotion.

Related to Leininger's (Leininger & McFarland, 2006) culture work is the recent emphasis on diversity and inclusion. The National League for Nursing's (NLN, 2016) diversity and inclusion "Vision Series" document included the premise that quality health care and diversity are inseparable. Diversity in the healthcare workforce increases access and improves health by allowing patients to have more choice in providers. Further, broader perspectives from providers who represent diverse groups help patients make health-related decisions, whereas a lack of diversity impedes the ability of nurses to provide quality care for all (NLN, 2016). Racial congruence between the patient and provider increases patient participation in their care and the patient's satisfaction (Institute of Medicine [IOM], 2004). This view is echoed in the desired outcomes published in the recent Future on Nursing 2020-2030 report (National Academies of Sciences, Engineering, and Medicine [NASEM], 2021), which states nurses should reflect the characteristics of the people they serve to ensure individuals receive culturally competent and equitable health care. Unfair and avoidable differences in health outcomes "disproportionately impact people of color; the lesbian, gay, bisexual, transgender, and queer (LGBTQ) community; people with disabilities; those with low income; and those living in rural areas" (NASEM, 2021, p. 3). To achieve this outcome, nursing programs must support students and faculty from a wide range of backgrounds (NASEM, 2021). Over the next decade and beyond, the U.S. population

will become more racially and ethnically diverse; White individuals will increase by approximately 4% but other racial and ethnic groups will increase more rapidly (NASEM, 2021). As the population diversifies, the diversity of graduates from nursing programs must keep pace.

Background

Nursing Workforce

Healthcare quality and diversity are inseparable but the nursing workforce is not racially and ethnically representative of the population (NLN, 2016). "A diverse workforce is one that reflects the variations in the nation's population in such characteristics as socioeconomic status, religion, sexual orientation, gender, race, ethnicity, and geographic origin" (NASEM, 2021, p. 217). In the 2020 Nursing Workforce Survey (Smiley et al., 2021), 80.6% of registered nurses (RNs) identified as White/Caucasian compared to 72.9% of the general population in 2021 (U.S. Census Bureau, 2023). Some racial and ethnic populations were grossly underrepresented. The U.S. Census Bureau (2023) reported that 14.2% of the population identified as Black or African American in 2021 compared to only 6.7% of RNs (Smiley et al., 2021). Although 18.8% of individuals identified as Hispanic or Latino in the U.S. Census Bureau's 2021 demographic estimates, only 5.6% of RNs reported similarly (Smiley et al., 2021). Additionally, males continued to be underrepresented in the nursing workforce although there have been gains from 6.6% of the RN population in 2013 to 9.4% in 2020 (Smiley et al., 2021). The nursing workforce is becoming more diverse but persons of color are inadequately represented (Smiley et al., 2021). Table 1 provides comparative demographic data.

Table 1

Comparative Demographic Data

Demographic Variable	2021 estimates (U.S. Census Bureau, 2023) %	2020 nursing workforce survey (Smiley et al., 2021) %	Enrollment in basic RN programs (NLN, 2021) %	NLN faculty census survey- Full time nurse educators %
White	72.9	80.6		
Black/Non-Hispanic	14.2	6.7	11.2	9[c]
Hispanic	18.8	5.6	11	3.4[c]
American Indian	2.6	0.5	0.5	0.4[c]
Asian and/ or Pacific Islander	7.1[a] 0.5[b]	7.2[a] 0.4[b]	4.7	2.9[c]
Males	49.5	9.4	13	7[d]

Note. [a]Asian, [b]Pacific Islander, [c]NLN (2019a), [d]NLN (2019b)

Impact of Workforce Disparities

The diversity of the healthcare workforce impacts the quality of patient care. The IOM (2004) stated that patients who identify as minorities are more satisfied with the care they receive from racially concordant providers. Patient care can be impacted by multiple factors but when the diversity of the provider and patient differs, implicit bias, discrimination, and microaggressions are more likely to exist (Gibbons & Stock, 2017; Narayan, 2019; NASEM, 2021). Providers with implicit bias might show less compassion and spend less time with patients, which adversely affects patient assessment, impacts care, and influences healthcare follow-up (Narayan, 2019). Health disparities are exacerbated by the results of implicit bias combined with culturally incongruent communication (NASEM, 2021). Patients also reported that discrimination impacted their health by altering their emotional and physical reactions and, ultimately, their health behaviors (Gibbons & Stock, 2017). Even the threat of discrimination could alter a patient's behavior (NASEM, 2021). Microaggressions that include intentional or

unintentional verbal, behavioral, or environmental indignities undermine the provider's relationship with an individual (Cruz et al., 2019).

The American Association of Colleges of Nursing (AACN, 2019) affirmed the connection between a culturally diverse workforce and providing quality and culturally competent care. Strengthening the nursing workforce is key to improving health and health equity; this includes ensuring a diverse nursing workforce that reflects the communities in which they work (NASEM, 2021). Nurses from diverse backgrounds are more likely to work in settings with diverse populations and provide culturally congruent care (IOM, 2004).

Disparities in Nursing Education

To have a greater impact on addressing health disparities in diverse patient populations, nursing needs to consider who comprises the student and nursing faculty populations (NASEM, 2021). Nursing students should reflect the demographic diversity of the healthcare recipients they will serve. Similarly, the diversity of nurse educators should reflect their diverse student populations.

Students

To attain greater racial and ethnic representation in the workforce, graduates of prelicensure nursing programs need to be racially and ethnically representative of the population. The 2019-2020 Biennial Survey of Schools of Nursing (NLN, 2021) reported that 30.7% of basic RN students identified as belonging to an underrepresented population. Although there have been some overall increases in minority representation of nursing students since 2010, some populations are underrepresented compared to the general population. For example, in 2020, the enrollment in basic RN programs was comprised of 11.2% Black/non-Hispanic students, 11%

Hispanic, 4.7% Asian or Pacific Islander, and 0.5% American Indian (NLN, 2021). Enrollment of male nursing students remained constant at 13% as reported in 2018 and 2020 (NLN, 2021).

Faculty

The ability to recruit and retain diverse student populations parallels the ability to recruit and retain diverse faculty (AACN, 2019) and racial and ethnic underrepresentation is also prevalent in nursing faculty. The NLN Faculty Census survey in 2019 reported 82% of full-time nurse educators were White, 9% were African American, 3.4% were Hispanic, 2.9% were Asian, and 0.4% were Native Indian (NLN, 2019b). These percentages have minimally changed since 2015 when 81.9% reported as White/non-Hispanic, 8.4% were African American, 3.7% were Hispanic, 2.4% were Asian, and 0.4% were American Indian (NLN, 2015a). Similar to racial and ethnic underrepresentation of nursing faculty, male faculty were underrepresented in full-time nursing education positions. The 2019 NLN Faculty Census survey reported 7% of full-time nurse educators were male (NLN, 2019a), which increased slightly since 2015 when 6% identified as male (NLN, 2015b). Like diverse students, diverse faculty might feel unwelcome, underappreciated, and unsupported (Kolade, 2016; Whitfield-Harris et al., 2017). Additionally, non-White faculty were often tasked to contribute to university diversity efforts, mentor underrepresented groups, and participate in other initiatives that were uncompensated (Gewin, 2020). As a result, there was high attrition and low satisfaction of minority faculty (Whitfield-Harris et al., 2017).

Retention of Diverse Students

Various factors might influence retention of diverse student populations. Shelton (2003) found that students who persisted in their nursing program had significantly greater perceived functional and psychological faculty support. An atmosphere of academic success was created

when students felt cared for by their faculty which fostered student persistence (Shelton, 2003). Although Shelton's study focused on perceived faculty support and student retention in nursing students, it did not address the diversity of faculty and students. Brooks Carthon et al. (2014) studied the effects of pipeline programs to increase enrollment and graduation of underrepresented populations and suggested that mentoring, psychosocial support, and academic support were beneficial for success of racially and ethnically diverse students. Likewise, in a qualitative study by Hoeve et al. (2017), students expressed their reason for leaving a nursing program was the perceived lack of support from mentors.

Similarly, male students were also underrepresented in nursing schools. Although male students felt supported by their families, gender bias existed in the classroom and clinical settings (Petges & Sabio, 2020; Powers et al., 2018). Being a minority in nursing, male students expressed feeling singled out (Petges & Sabio, 2020; Powers et al., 2018). These students voiced the need for more male role models in nursing education to promote their retention and success (Petges & Sabio, 2020). Retention of a diverse student body requires the creation of inclusive learning environments, recruiting and admitting diverse student populations, and providing support for students to foster academic success (NASEM, 2021).

Cultural Identification

Increased congruence in the cultural identification between students and nursing faculty is needed to support the retention of underrepresented student populations. Cultural congruence is the degree of fit between the student and faculty's cultural values and beliefs (Jeffreys, 2015). Cultural incongruence impacts a student's academic success, motivation, and rate of attrition. A student's academic experience is consciously and unconsciously influenced by their cultural values and beliefs (Jeffreys, 2015). Lack of cultural diversity in nursing education and

differences in the primary language spoken are two potential barriers to student-faculty relationships (Ingraham et al., 2018; Jeffreys, 2015; Read et al., 2013; Villarruel et al., 2001). In contrast, culturally congruent mentoring and professional socialization are bridges for minority students to transition into the role of a nurse (Graham et al., 2016).

Cultural diversity in nursing education impacts students' academic experience. Ethnic minority students perceive themselves as the "other" due to factors relating to nursing faculty and the nursing educational environment (Iheduru-Anderson & Wahi, 2021). Students and faculty of differing cultural backgrounds might not share the same beliefs about definitions of success, the student-faculty relationship, or how to confront authority (Ingraham et al., 2018). Students recognize the importance of being more assertive of their needs but this skill is difficult to overcome due to their cultural values and beliefs (Starr, 2009). Culture affects a student's willingness to seek academic support (Starr, 2009).

Similarly, a student's primary language affects their educational journey. Starr (2009) found that language influenced how one accessed institutional and academic resources. When language differences exist, student-faculty communications might be impaired. Students might not understand the course materials, communicate their needs, or appreciate a faculty recommending referrals or resources (Starr, 2009). Culture influences how a student perceives and responds to verbal and non-verbal cues. Furthermore, faculty who do not share the same primary language as a student might perceive the student as less intelligent (Starr, 2009).

Culturally congruent mentoring and professional socialization might promote academic success for minority students (Loftin et al., 2012). Ethnic role models could help overcome lack of appreciation of student's cultural needs (Starr, 2009). Diverse faculty offer broader perspectives and experiences and could be mentors and role models for underrepresented

populations (Phillips & Malone, 2014). Villarruel et al. (2001) found Hispanic nursing students identified the availability of Hispanic mentors as an important support and the scarcity of nursing mentors and role models intensified the students' feelings of lack of faculty support. In contrast, students who do not culturally identify with their faculty might be hesitant to seek faculty support. Loftin et al. (2012) found minority students expressed hesitancy to approach non-minority faculty to serve as mentors and advisors. Furthermore, lack of diverse representation in nursing faculty sends a message to students that the nursing profession does not value opportunities for professional advancement for minority students (AACN, 2019).

The Caring Connection

Nurse educators need to create environments where diverse student populations can flourish (NLN, 2016). Faculty caring is important to students (Labrague et al., 2016). Researchers found that students in caring environments experienced positive outcomes including confidence, feeling cared for, growth and empowerment, and the motivation to overcome barriers (Begum & Slavin, 2012; Mikkonen et al., 2015; Shelton, 2003; Sutherland et al., 2007). Moreover, caring interactions with students may ultimately help to address the nursing shortage and inadequately prepared nurses (McEnroe-Petitte, 2011).

McEnroe-Petitte (2011) suggested a caring curriculum is needed to support students at risk of not completing their nursing program. Shelton (2003) found a significant difference ($F = 19.33$, $p < .001$) in student's perception of faculty support with students who persisted through their nursing program perceiving greater support compared to students who voluntarily withdrew or were required to withdraw. This finding was supported in qualitative studies by Clark (2008) and Mikkonen et al. (2015), which found that a student's motivation to learn and the decision to remain in a nursing program was influenced by faculty caring behaviors. In a systematic

literature review by Henderson et al. (2019), student perception of faculty caring affected the student's learning environment and this could influence their intent to graduate.

Caring relationships have been found to decrease barriers for minority students (Evans, 2004; Kosowski et al., 2001; Taxis, 2006). In a study of 59 prelicensure nursing programs in Texas, Loftin et al. (2012) found the graduation rates were lower for underrepresented minority students than for White students and a significant positive relationship existed between emotional and moral support of underrepresented minority students and graduation rates (r = .326, p = .011). Although the nursing faculty in the study by Loftin et al. considered their program to be a welcoming and encouraging environment, nurses and students of diverse cultures might perceive caring differently from one another (Pajnkihar et al., 2019, 2020; Papastavrou et al., 2012).

Absence of nursing faculty caring is associated with incivility and this contributes to a negative learning environment (Ingraham et al., 2018). Clark (2008) found uncivil faculty behaviors affected student efficacy, self-confidence, and well-being. Students who felt belittled, angry, or stupid by faculty experienced a negative impact on confidence, academic performance, and, as a result, their success was hindered (Lasiter et al., 2012; Mott, 2014; Poorman et al., 2002). Additionally, students might experience mental distress from perceived lack of faculty caring behaviors (Mikkonen et al., 2015). Unempathetic faculty behaviors led to students feeling discouraged, helpless, and demoralized (Mikkonen et al., 2015). Students' perceptions resulting from experiences of incivility could influence their desire or ability to complete their nursing program. In a study by Marchiondo et al. (2010), student dissatisfaction with their nursing program was significantly correlated to experiences of faculty incivility ($\beta = -0.47$, $p < .001$) and this explained 22% of the variance in the multiple regression model. Similarly, in a qualitative

study by Mott (2014), students who experienced faculty bullying expressed fear of failure and being dismissed from the nursing program.

Caring science, as described by the theory of caring (Watson, 2008), serves as a starting point to move toward more peaceful relationships with others. Human caring includes expressions of openness, consciousness, intentionality, receptiveness, and authenticity (Watson, 2019). These expressions are described in 10 core practices named caritas processes, the composite of which depicts one's caring. Caring as described by the caritas processes includes being open to others and the differences of others (Watson, 2008). When space is created to honor the other person, we see the whole "personal face behind the impersonal" other (Watson, 2008, p. 254). Caring and relationships lie at the foundation of nursing and these qualities should be central to nursing education (Watson, 2008). When others are seen or treated as different, harm is inflicted upon them (Watson, 2008).

Because caring needs to be culturally specific and appropriate (Wehbe-Alamah, 2015), there might be an incongruence between student and nurse educator perception of faculty caring. Both the student and the faculty approach the relationship with their own cultural lens. In a discipline in which the educators are primarily White/Caucasian, prelicensure nursing students might not culturally identify with their faculty, which might influence their perception of faculty caring and their desire to stay in a program. Ultimately, this might perpetuate racial and ethnic workforce disparities.

Statement of the Problem

Increasing the diversity of the nursing workforce might be key to achieving equitable health outcomes. Caring is the essence of the nursing discipline and a caring connection, which is dependent on culturally congruent care, is needed to meet patient outcomes. Healthcare quality

and cultural diversity are inseparable but the nursing workforce does not mirror the racial and ethnic makeup of the general population. To attain greater racial and ethnic representation in the workforce, graduates of prelicensure nursing programs need to be racially and ethnically representative of the population. Just as a caring connection between the nurse and the patient improves patient outcomes, a caring connection between faculty and student might improve student outcomes. Because caring is viewed through a cultural lens, a caring connection might be hindered if students do not culturally and ethnically identify with their faculty. As a result, student desire to stay in their program of study might be affected.

Purpose of the Study

The purpose of this study was to empirically analyze the extent to which prelicensure nursing students' desire to stay in their program of study was explained by students' cultural identification with their nursing faculty and students' perception of faculty caring.

Research Questions and Hypotheses

This study was guided by the following research questions and hypotheses:

Q1 To what extent do prelicensure nursing students' perception of faculty caring and a students' cultural identification with their nursing faculty, predict students' desire to persist in their program?

H1 There will be no statistically significant relationship between prelicensure nursing students' perception of faculty caring, students' cultural identification with their nursing faculty, and students' desire to stay in their program.

Q2 What is the relationship between students' cultural identification with their nursing faculty and individual Caritas Process statements?

H2 There is no statistically significant relationship between students' cultural identification with their nursing faculty and individual Caritas Process statements.

Significance of the Study

Research in this area is significant for both nurse educators and prelicensure nursing students. Positive patient outcomes are promoted when nurses reflect the diversity of the patient

population. To increase diversity among nurses, nursing schools need more diverse graduates from prelicensure nursing programs but attrition is greater among students with diverse racial, ethnic, and cultural backgrounds (Barbé et al., 2018; Harris et al., 2014; Veal et al., 2012). Nurse educators must identify strategies to support diverse student populations to promote retention and successful program completion for all students. Factors that support student retention are complex but two variables assessed in this study were a student's cultural identification with their faculty and student perception of faculty caring. By identifying the extent to which these variables influenced student desire to stay in a program, resources could be directed that have a positive impact on student success.

Theoretical Framework

A theoretical framework is used in research to study a phenomenon and explain the relationship between variables (Creswell & Creswell, 2018). This quantitative study was guided by two theories: Leininger's (Leininger & McFarland, 2006) culture care theory (CCT) and Watson's (2012) theory of human caring (THC). When used together, these two theories explain the influences of the cultural lens in which one experiences a caring relationship.

Conceptual Definition of Terms

A conceptual definition is the link between the study framework and the operational definitions (Gray et al., 2017). This study evaluated the following four variables:

Caritas Processes. Caritas comes from the Latin word, which means to give special, loving attention to something that must be cultivated (Watson, 2008). Caritas invokes a loving openness to another (Watson, 2008). Caritas processes are individual caring practices identified as part of the core of the THC (Watson, 2008).

Desire to Stay in a Program. Defined as a student's internal feeling of wanting to persist in the program of study through graduation or a motivation to continue. This differs from retention, which is defined by the Higher Learning Commission (2021) as continued enrollment from one point in time to the next. Retention could be affected by a student's academic success, financial aid, or other metrics.

Students' Cultural Identification with Faculty. The NLN (2016) stated "that each individual is unique and recognizes individual differences-race, ethnicity, gender, sexual orientation and gender identity, socio-economic status, age, physical abilities, religious beliefs, political beliefs, or other attributes" (p. 2). These differences influence one's cultural perspective. To culturally identify with faculty is defined as a student recognizing and relating with similar characteristics between themselves and their nursing faculty. This connection might exist with one or more faculty members if the connection has meaning for the student. In contrast, a related variable is belonging, which is conceptualized as the feeling that one is accepted, valued, and understood within a group of peers or a group in its entirety (Dowling et al., 2021).

Student Perception of Faculty Caring. Watson (2008) defined a caring relationship as "one that invites emergence of human spirit, opening to authentic potential, being authentically present, allowing the person to explore options-choosing the best action for self for 'being-in-right relation' at any given point in time" (p. 17). An individual's caring is portrayed by specific practices that can be empirically measured. A student's perception of faculty caring is the extent a faculty member's caring practices are evident as reported by a student.

Summary

Patient outcomes are negatively impacted by the lack of diversity of the nursing work force. To increase workforce diversity, increased diversity of prelicensure nursing graduates is needed. Diverse student populations are currently underrepresented in prelicensure nursing programs and lack of representation is also mirrored in nursing faculty. Increased cultural identification with faculty is needed to increase mentorship and role model opportunities for prelicensure nursing students. Additionally, the retention of diverse students is influenced by caring behaviors that can be perceived differently by different cultures. Students' cultural identification with faculty and student perception of faculty caring are two factors that might influence students' desire to stay in a program. This study empirically examined the relationship between these variables.

In Chapter II, the literature review explores the concept of caring in greater detail including student perceptions of faculty caring, how diversity of faculty and students might influence students' perceptions of caring, and the effect of faculty caring on student desire to stay in a program. Additionally, theoretical frameworks relevant to the phenomenon are discussed including an application of the relevant theories.

CHAPTER II

REVIEW OF THE LITERATURE

This chapter discusses the theoretical frameworks that informed this study and a review of the literature related to the concepts of inquiry. Two theoretical frameworks are described and integrated for application to the phenomenon of interest. Concepts explored in the literature included (a) student perception of faculty caring, (b) students' cultural identification with their nursing faculty, and (c) student desire to stay in a program.

Theoretical Frameworks

Two theoretical frameworks informed this study, Madeleine Leininger's (Leininger & McFarland, 2006) culture care theory (CCT) and Jean Watson's (2008) theory of human caring (THC). The development of the CCT was groundbreaking in that it offered nurses a framework of how to provide culturally congruent care for others. The connection between a student and faculty is more than a unidirectional relationship though; it is an ongoing mutual process that develops over time. The THC strengthens how one could be in a relationship with another and the CCT provides the lens to understand the others' experiences.

Leininger's Culture Care Theory

Theoretical Origin and Development

In the early 1950s, Madeleine Leininger practiced as a clinical mental health specialist with children of diverse backgrounds (Leininger & McFarland, 2006). Through this work, Leininger recognized that care and culture were two dimensions missing in nursing. The beginnings of her theory were hypothesized in the mid-1950s when she predicted that care was

embedded in culture and there was a need to appreciate care in diverse cultures and contexts to understand a client's care needs. To augment her graduate work in nursing and to develop a sound nursing theory that could also be applicable to other disciplines, Leininger completed an anthropology doctoral program in the 1960s. The early conceptualizations of the CCT began with Leininger's ethnonursing work in Papua New Guinea for her doctoral dissertation.

Leininger (Leininger & McFarland, 2006) advanced knowledge of the discipline and the domain of ethnonursing with further publications. Conceptualizations of ethnonursing and the foundation of the CCT began in 1978 with the publication of *Transcultural Nursing: Concepts, Theories, Research, and Practice,* which described the earliest assumptions, definitions, and propositions of the theory development (Leininger, 2002). In 1991, the first book on the CCT was published that included a preamble by Dr. Jean Watson who was a colleague and student of Leininger (McFarland & Wehbe-Alamah, 2019). The purpose of the theory was to understand and explain the interdependence of care and culture that is needed to provide culturally congruent care to promote health, healing, and well-being for individuals of diverse cultures (Leininger & McFarland, 2006, 2006). Leininger (2002) is credited with coining the term culturally congruent care, which is the central goal of the theory.

Leininger's (2002) book and theory underwent subsequent refinements and editions. The publication of the second edition of *Transcultural Nursing* in 1995 further developed the CCT and expanded research-based knowledge of 30 Western and non-Western cultures (Leininger, 2002). The third edition published in 2002 highlighted additional theory-based research and practice by nursing scholars (Leininger, 2002). Following Leininger's death in 2012, a further revision to the theory was published by McFarland and Wehbe-Alamah (2019), students of

Leininger, that included updates to the theoretical model reflective of current knowledge of the nursing discipline.

Theoretical Concepts and Description

Several constructs are described and defined within the theory including caring, emic and etic knowledge, and cultural worldview. Leininger (Leininger & McFarland, 2006) defined caring as the "actions, attitudes, and practices to assist or help others toward healing and wellbeing" (p. 12). Leininger differentiated emic and etic knowledge to discover contrasting cultural phenomena (McFarland & Wehbe-Alamah, 2019). Emic describes an insider's cultural knowledge and view (Leininger & McFarland, 2006, 2006). In contrast, etic knowledge is the outsider's professional understanding about the culture (Leininger & McFarland, 2006). Overarching within the theory is the concept of a cultural worldview, which is defined as the lens people use to view their environment or the value stance that explains one's world. A worldview provides a broad perspective which influences one's responses and decisions (Leininger & McFarland, 2006).

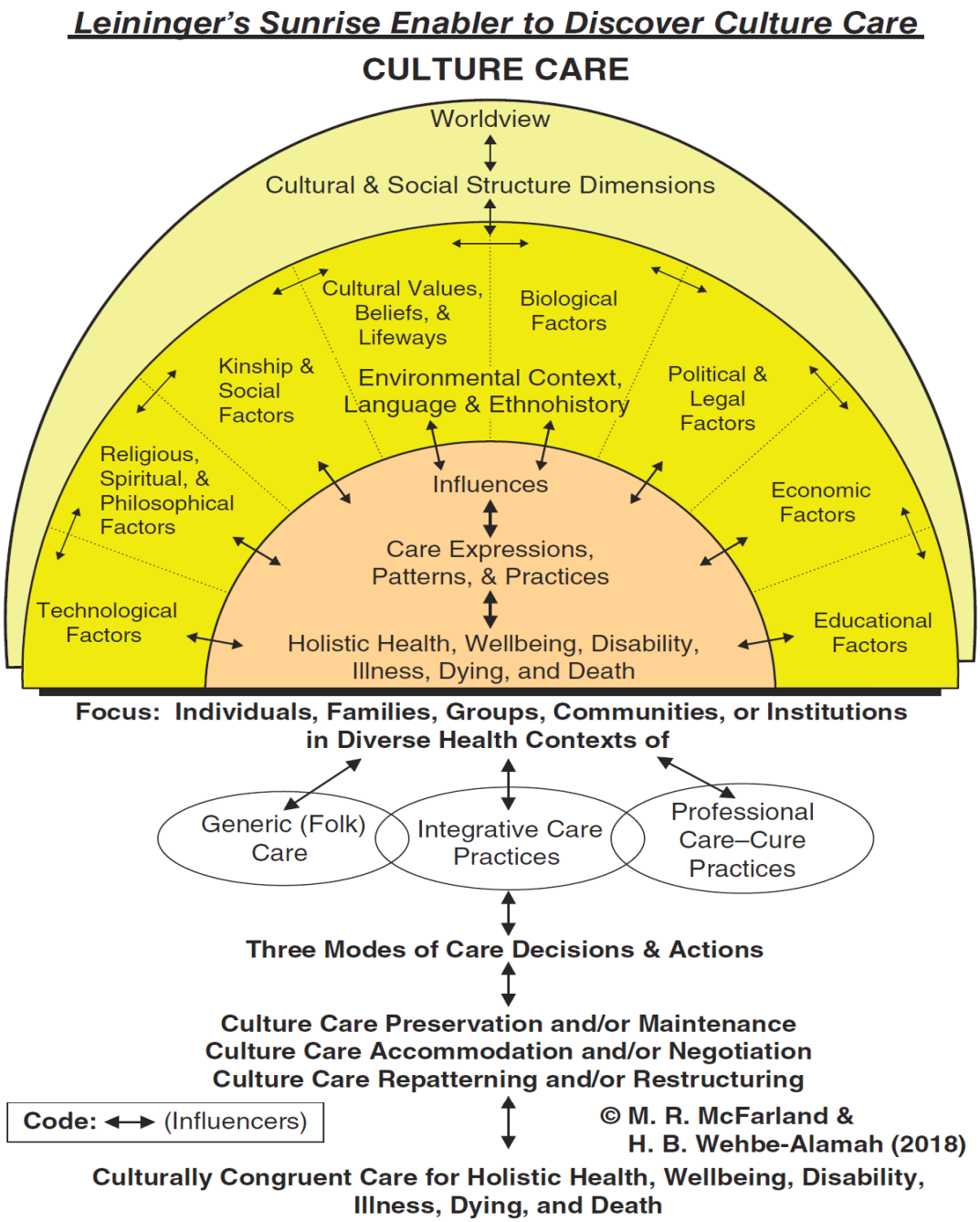
Leininger (Leininger & McFarland, 2006) developed models named enablers to guide research and understanding of culture care. The sunrise enabler is the major guide to comprehensively explore multiple factors influencing culture care and expression. Figure 1 depicts the sunrise enabler (McFarland & Wehbe-Alamah, 2019, p. 47) that includes the fundamental concepts of the theory. Leininger defined culture as "the learned, shared, and transmitted values, beliefs, norms, and lifeways of a particular culture that guides thinking, decisions, and actions in patterned ways and often intergenerationally" (Leininger & McFarland, 2006, p. 13). The CCT states that an individual's worldview, cultural beliefs, and social factors directly and indirectly influence one's health, wellness, and well-being (McFarland & Wehbe-

Alamah, 2019). Social structure factors include technology; religion and philosophy; kinship and social considerations; cultural values, beliefs, and lifeways; political and legal beliefs; economics; and education (Leininger & McFarland, 2006). In 2019, McFarland and Wehbe-Alamah also added biological factors. By discovering all factors and combining this knowledge with folk, integrative, and professional care practices, one can provide culturally congruent care (McFarland & Wehbe-Alamah, 2019).

The goal of the theory is to provide culturally congruent care, defined as the "knowledge, acts, and decisions used in sensitive and knowledgeable ways to appropriately and meaningfully fit the cultural values, beliefs, and lifeways of clients" (Leininger & McFarland, 2006, p. 15). Four tenets provide a theoretical foundation for the CCT. First, "care diversities and universalities exist…among and between cultures in the world" (Leininger, 2002, p. 78). Second, "worldview and social structure factors…greatly influence culture care meanings, expressions, and patterns in different cultures" (Leininger, 2002, p. 78). Third, both "generic emic [folk] and etic [professional] health factors in different environmental contexts greatly influence health and illness outcomes" (Leininger & McFarland, 2006, p. 18). Lastly, three modes of care decisions and actions are used to promote culturally congruent care. First, is the use of culture care preservation and/or maintenance, which are the actions or decisions that help cultures retain values and beliefs (Leininger & McFarland, 2006). Second, provider actions or decisions help cultures adapt to or negotiate with providers to receive culturally congruent care (Leininger & McFarland, 2006). These are identified as culture care accommodations and/or negotiations. Third are culture care repatterning and/or restructuring actions, which are the provider actions or mutual decisions that help others modify behaviors for improved health and healing (Leininger & McFarland, 2006).

Figure 1

The Sunrise Enabler



Note. Leininger's Sunrise Enabler to Discover Culture Care figure used with permission (see Appendix A). McFarland, M., & Wehbe-Alamah, H. (2018). *Transcultural nursing concepts, theories, research, & practice* (4th edition, p. 47). McGraw-Hill Education. https://doi.org/10.1177/1043659619867134

Jean Watson—Theory of Human Caring

Theoretical Origin and Development

Jean Watson was a colleague and student of Madeleine Leininger (McFarland & Wehbe-Alamah, 2019). She developed the THC between 1975-1979 from her work at the University of Colorado (Watson, 2022). The theory combined Watson's (2022) view of nursing with her doctoral work in educational, clinical, and social psychology. Watson first described her ideas of caring science in her first book, *Nursing the Philosophy and Science of Caring* (Watson, 2022). The theory underwent further revisions in 1985, 1999, 2006, and 2008 (Watson, 2022). The perspective emerging in Watson's work made explicit nursing's knowledge, values, and practices that focused on an individual's inner healing processes. The theory balances the cure orientation of conventional medicine with nursing's unique disciplinary stance. The theoretical framework embraces mind-body-spirit caring (Watson, 2022).

The THC gives nursing a unique stance that stands in contrast to a curative medical model (Watson, 2021). The early theory named 10 carative factors as a framework to provide a focus for the nursing phenomenon. As the theory evolved, Watson updated the carative factors to caritas processes, described caring science as sacred science, and depicted a unitary global consciousness for leadership (Watson, 2015). The evolution of the theory illustrated that the THC could be read at distinct levels—a grand theory including a transpersonal, energetic-field of universal love and evolving consciousness or a middle-range theory that provides structure and language to frame caring experiences. The middle-range focus is congruent for research projects exploring caring in the academic setting.

Assumptions of the Theory of Human Caring

Watson defined the basic assumptions of the THC in her original 1979 work, which were updated with minor modifications in 2008. First, "caring science is the essence of nursing and the foundational disciplinary core of the profession" (Watson, 2008, p. 17). Although caring is practiced interpersonally, the phenomenon transcends time, space, and physical presence. Individuals learn to be human by identifying with others and one's reflection in others (Watson, 2008). Caring is expressed by carative factors/caritas process that facilitate healing and wholeness and effective caring promotes healing, health, and individual growth (Watson, 2008). Caring not only accepts a person for who they are becoming but the practice of caring also allows an individual to choose the best actions for themselves (Watson, 2008). Furthermore, caring is 'healthogenic' but caring science complements curing science (Watson, 2008).

Core Aspects of the Theory of Human Caring

The core aspects of the theory include the transpersonal caring moment and caring consciousness embodied by intentionality and energetic presence (Watson, 2008). The transpersonal caring moment can be part of any caring occasion but is most apparent when one's consciousness, intentionality, and presence are radiating beyond the field of two people. Watson (2015) used the word transpersonal to describe the concern for the inner being and subjective meaning of another. Being in relationship is pivotal to caring. A transpersonal caring relationship is when one's being radiates beyond self to tap into the possibilities and potentials of another. Transpersonal caring seeks to connect with the being of another through caring and being in authentic relationship, which is influenced by consciousness, intentionality, and presence.

Watson (2015) further described assumptions of the transpersonal caring relationship. A relationship of transpersonal caring exists to "protect, enhance, promote, and potentiate human dignity, wholeness, and healing" (Watson, 2015, p. 327). The significance of the other being is affirmed by the relationship where one seeks to recognize and connect with the inner being of another. Many factors contribute to the transpersonal caring connection such as actions, words, and behaviors that are apparent in one's movements, gestures, facial expressions, touch, and verbal expressions. The transpersonal caring relationship occurs in a moment—a specific time and space. A caring moment is when the unique beings of a nurse and another come together in a human-to-human transaction; this includes both action and choice by the nurse and the other being. The two beings can choose how to be in relationship in the moment. When nurses include caring in their work, the profession becomes more than a job; rather, it is a life-giving and life-receiving profession encompassing a lifetime of growth and learning (Watson, 2015).

An additional core aspect of the THC is the 10 carative factors/caritas processes. Carative factors are the core activities used in the delivery of care (Watson, 2008). As the theory evolved, caritive factors transformed to caritas processes that expanded the practice of loving-kindness, authentic presence, moving beyond self, and allowing for miracles (Watson, 2008). Table 2 depicts the evolution of the caritas factors to the caritas process.

Table 2

Original Carative Factors and Evolved Caritas Processes

Carative Factors 1979	Caritas Processes 2002-2007
1. Humanistic-altruistic values	1. Practicing loving-kindness and equanimity for self and other
2. Instilling/enabling faith and hope	2. Being authentically present; enabling/sustaining/honoring deep belief system and subjective world of self/other
3. Cultivating sensitivity to oneself and other	3. Cultivating one's own spiritual practices; deepening self-awareness, going beyond "ego-self"
4. Developing a helping-trusting, human caring relationship	4. Developing and sustaining a helping-trusting, authentic caring relationship
5. Promoting and accepting expression of positive and negative feelings	5. Being present to, and supportive of, the expression of positive and negative feelings as a connection with deeper spirit of self and the one-being-cared-for
6. Systematic use of scientific (creative) problem-solving caring process	6. Creative use of self and all ways of knowing/being/doing as part of the caring process (engaging in artistry of caring-healing practices)
7. Promoting transpersonal teaching-learning	7. Engaging in genuine teaching-learning experiences within context of caring relationship-attend to whole person and subjective meaning; attempt to stay within other's frame of reference (evolve toward "coaching" role vs. conventional imparting of information)
8. Providing for a supportive, protective, and/or corrective mental, social, spiritual environment	8. Creating healing environment at all levels (physical, nonphysical, subtle environment of energy and consciousness whereby wholeness, beauty, comfort, dignity, and peace are potentiated (Being/Becoming the environment)
9. Assisting with gratification of human needs	9. Reverentially and respectfully assisting with basic needs; holding an intentional, caring consciousness of touching and working with the embodied spirit of another, honoring unity of Being; allowing for spirit-filled connection
10. Allowing for existential-phenomenological dimensions	10. Opening and attending to spiritual, mysterious, unknown existential dimensions of life-death-suffering; "allowing for a miracle"

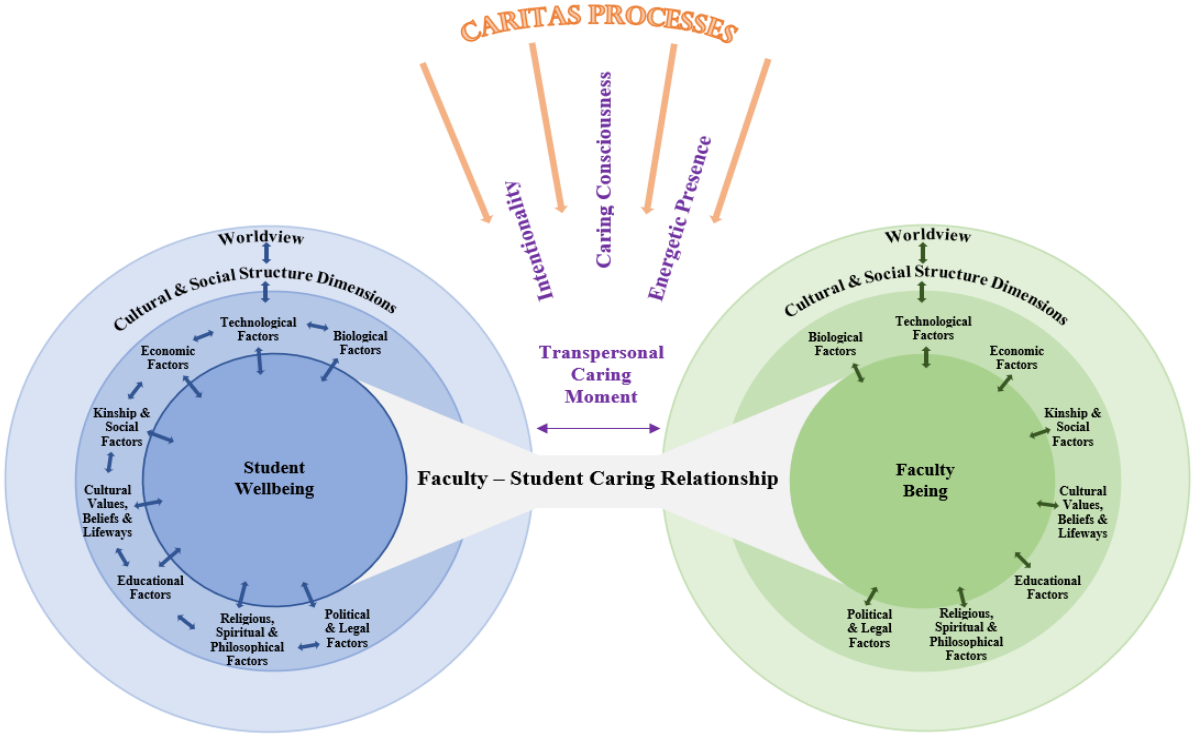
Note. Watson (2008).

Application of Theory

Together, Leininger's (Leininger & McFarland, 2006) CCT and Watson's (2008) THC explain the phenomenon of interest. Figure 2 depicts an integrated model of these two theories. This conceptual model illustrates the application of the theories to address the proposed research questions.

Figure 2

Faculty-Student Cultural Caring Relationship Model



Leininger's work described an epistemology of caring from diverse cultural perspectives (McFarland & Wehbe-Alamah, 2019). Students enter a nursing program with their own cultural lenses and lived experiences and unite into a relationship with faculty who have their own lived

experiences and cultural lenses. The cultural and social structure dimensions described by the CCT are forces that influence the student's and the faculty's being and, consequently, the faculty-student caring relationship that includes the student's perception of faculty caring. There are universalities among cultures but there is also diversity (McFarland & Wehbe-Alamah, 2019). Therefore, stereotypes must be avoided and the experience of the individual honored. By assessing the influencing forces and applying this knowledge with the implementation of caring practices, the wellbeing of the student is promoted.

Watson's (2008) THC describes the ontology of caring relationships. When faculty and students are in a caring relationship, a transpersonal caring moment is created, which is demonstrated by caring consciousness, intentionality, and energetic presence. The 10 caritas processes describe the universal truths that guide our caring practice with another (Watson, 2022).

Using the model as a guide, this study empirically analyzed the extent to which prelicensure nursing students' desire to stay in their program of study was explained by students' cultural identification with their nursing faculty and students' perceptions of faculty caring. The following research questions were investigated:

Q1 To what extent do prelicensure nursing students' perception of faculty caring and a students' cultural identification with their nursing faculty, predict students' desire to persist in their program?

Q2 What is the relationship between students' cultural identification with their nursing faculty and individual caritas process statements?

Details about the specific surveys chosen for this study are provided in the "Measurement" section.

Search Strategy

The literature review was conducted using the search terms faculty, nursing; AND student, nursing, baccalaureate; AND caring; AND diversity or inclusion or representation or retention or success or mirroring. The terms were entered individually in Cumulative Index of Nursing and Allied Health (CINAHL), MEDLINE, and Academic Search Premier to determine suitability. After identifying these databases yielded appropriate search results, the terms were searched in combination with all three databases.

The search results were refined using inclusion and exclusion criteria. Inclusion criteria were limited to peer-reviewed and English language. The search yielded 74 articles that met inclusion criteria. Articles were further excluded that were presentation abstracts only or upon review of the abstract did not relate to nursing students' perception of faculty caring, degree to which students culturally identified with faculty, and student success or retention. Thirty-seven articles were retained following application of inclusion and exclusion criteria.

Although no publication date was included as a criterion for the literature search, few articles prior to 2000 were returned in the search results. In 1990, Madeleine Leininger and Jean Watson co-edited a book with the National League for Nursing titled, *The Caring Imperative in Education* (as cited in Bauer, 1990). It was in this book that caring was identified as a central focus in nursing curriculum development (Bauer, 1990). Publication of this book prompted a slight increase in the literature referencing caring in nursing education but it was around 2000 that the momentum increased. Therefore, studies published after 2000 were included in this literature review.

After further evaluation of the articles that met the inclusion and exclusion criteria, gaps in the literature were noted. For example, metasynthesis studies were included in the search

results but the original studies the syntheses were based upon were not. To ensure a well-rounded review of the literature, studies were identified from article citations and included in the literature review. The remainder of this chapter explores the literature related to the concepts of (a) student perception of faculty caring, (b) students' cultural identification with their nursing faculty, and (c) student desire to stay in a program.

Student Perception of Faculty Caring

What is Caring?

Caring is a complex concept that can be viewed as an adjective, noun, or adverb. Merriam Webster (2020) defined caring as "feeling or showing concern for or kindness to others" (para. 1) but this definition does not embrace the depth of meaning attributed by nurses. Within the discipline of nursing, there is no unified definition of caring. In 1975, the first National Research Caring Conference was organized with the support of Madeleine Leininger (Cook & Peden, 2017). Leininger (1978) was the first to consider caring as a unifying focus of nursing. Additionally, Watson (1979) put forth the ideas of caring science in her first book, *Nursing: The Philosophy and Science of Caring*. A renewed interest to examine the concept of caring was inspired by the National Research Caring Conference and Watson's writings; eventually in 1988, caring became a separate term in the CINAHL database (Cook & Peden, 2017). Around the same time in 1989, Sigma Theta Tau and the American Academy of Nursing recommended that 'caring' replace 'nursing' in the discipline's metaparadigm concepts but the proposal was not widely supported (Cook & Peden, 2017). In 1991, Newman et al. asserted that the focus of the discipline of nursing is "the study of caring in the human health experience" (p. 3). It was not until 2010 that the American Nurses Association defined nursing as "the provision of a caring relationship that facilitates health and healing" (p. 12). The concept of caring in the

discipline of nursing has evolved in the last decades but it is still an elusive concept. Before reviewing the literature on nursing students' perception of faculty caring, what caring is must be explored.

Definition of Caring

Nursing theorists have developed their own conceptualization of the term caring. Leininger (1984) defined caring as "those assistive, supportive, or facilitative acts toward or for another individual or group with evident or anticipated needs, to ameliorate or improve a human condition or lifeway" (p. 86). Similarly, Newman et al. (1991) stated that caring is the unique aspect of the nurse-patient relationship that allows the transforming connection to exist. Furthermore, caring is a moral imperative or social mandate, which is an inherent characteristic spurring one to action and is underscored by service (Newman et al., 1991). Likewise, Swanson (1991) described caring as an obligation to care for people until they can care for themselves. Specifically, caring is "a nurturing way of relating to another toward whom one feels a sense of commitment and responsibility" (Cook & Peden, 2017, p. 14). Eriksson (2002) expanded on these previous definitions and included not only a moral aspect but also a spiritual component. Not only is caring founded on a deep respect for the absolute dignity of another but also the person being cared for is seen as an inherently holy and spiritual being (Eriksson, 2002). This sense of dignity obliges one to serve with love (Eriksson, 2002). Watson (2012) expanded upon the concept, stating that caring is a social mandate that gives meaning to nursing's existence. Caring is "a significant humanitarian, ethical, philosophical, and epistemic endeavor and cultivated practice that contributes to the preservation of humanity" (Watson, 2012, p. 37). When viewed from the lens of nurse theoreticians, caring is a complex concept that includes a moral component, a social obligation, and a call to action to serve another.

Caring in Nursing Education

In 1990, the National League for Nursing called for caring to be a core value in nursing curriculum (Tanner, 1990). Beck (2001) sought to explore what nurse researchers had discovered about caring in nursing education the previous decade since this call was made. A metasynthesis was conducted that included 14 qualitative studies on caring in nursing education (Beck, 2001). The studies explored caring among faculty, faculty-nursing student caring, caring among nursing students, and caring between nursing students and patients.

Five themes were revealed in this metasynthesis (Beck, 2001). First, presence is an important component of caring. Attentive listening, recognizing, and sensing are crucial to foster authentic presence. Sharing contributes to the caring connection (Beck, 2001). Faculty sharing stories or sharing their time with students is indicative of caring. Supporting was a third theme identified by Beck (2001). In a caring relationship, support is unsolicited and there is no expectation in return. Emotional support could be demonstrated by reassurance, encouragement, and patience. Another theme of caring was competence (Beck, 2001). Faculty exhibit caring by sharing their knowledge and expertise. The fifth theme identified by Beck was uplifting effects. Caring can transform a relationship. Individuals feel valued and respected, which increases one's self-worth and self-esteem (Beck, 2001).

Positive Student Outcomes

As noted by Beck (2001), experiencing caring by faculty can result in positive outcomes for students. Anaya and Cole (2001) investigated the correlation between student-faculty interactions and student academic achievement in undergraduate Latina/o students attending research and doctoral granting institutions. The study was a secondary analysis of an annual College Student Experiences Questionnaire completed at 30 institutions. The quality of

relationships with faculty significantly predicted students' academic achievement ($\beta = .1$, $p < .01$); the authors suggested these findings demonstrated that accessible and supportive faculty enhanced student academic achievement. Because this study was a secondary analysis, further information about other influencing variables was not available.

Begum and Slavin (2012) completed a study to describe the concepts of caring from the nursing student perspective. This qualitative study was conducted with in-person interviews of eight senior level baccalaureate nursing students. Analysis of the interviews revealed five themes: a mothering relationship, a helping attitude, limit setting, communication, and a source of empowerment and development. Specifically, consequences of faculty caring included increased student confidence, personal satisfaction, and motivation. One study participant was inspired to become a nurse educator as a direct consequence of the faculty caring received during their program of study. A limitation of this study was the participants were recommended by the nursing faculty so bias might have been inherent in the participant pool. Additionally, the authors noted the study was set in Pakistan and Islamic culture highly regards educators; teachers are considered second to parents. Therefore, the findings might not translate to countries with different cultural values.

Mikkonen et al. (2015) found that faculty caring positively and negatively influenced the learning environment. This qualitative study was conducted in Finland at a university taught in English. The participants included 12 nursing students in their second and third years of the nursing program. Students were from a variety of geographical and cultural backgrounds including South and North America, Africa, China, Russia, and Finland. Saturation was reached with the participants, and the in-person interviews identified two main themes. Similar to Begum and Slavin (2012), Mikkonen et al. found that faculty empathy promoted a constructive learning

experience and caring environment. Constructive learning included motivation to learn and improved outcomes. Faculty caring motivated students to learn and continue their studies. Students voiced they wanted to work harder and achieve more. In contrast, this study revealed that lack of empathy obstructed learning. This led to a lack of motivation and learning apprehension. Students stated that learning apprehension included feeling stupid, loss of interest in learning, and wanting to give up their studies. Although there was diversity among the students, the authors did not describe the nursing faculty so it is unknown whether the faculty body mirrored the student demographics in gender, ethnicity, or cultural background.

The findings of Mikkonen et al. (2015) were similar to those of Komarraju et al. (2010) in a study of 242 undergraduate students enrolled in an introduction to psychology course at a midsize, Midwestern public university. Komarraju et al. examined the effects of student-faculty interactions on student academic self-concept, motivation, and academic achievement. A significant positive correlation was found among academic self-concept and faculty approachability, accessibility, respect, caring, and connectedness. Intrinsic motivation was found to be positively correlated with faculty approachability, accessibility, respect, caring, and connectedness. Furthermore, amotivation was found to be negatively correlated with faculty approachability, accessibility, respect, and caring. Table 3 provides correlation coefficients and level of significance for each of these findings. This study suggested that positive faculty attributes of caring were associated with students' academic self-confidence and motivation, whereas negative faculty attributes of caring were associated with students' lack of motivation.

Table 3

Correlation Coefficients and Significance

	Approachability (*r*)	Accessibility (*r*)	Respect (*r*)	Caring (*r*)	Connectedness (*r*)
Academic Self-Concept	.31**	.29**	.33**	.25**	.24**
Intrinsic Motivation	.13*	.17**	.27**	.26**	.31**
Amotivation	-.14**	-.20**	-.25**	-.13*	-.04

Note. *$p < .05$, **$p < .01$. Komarraju et al. (2010).

These studies demonstrated that faculty caring behaviors positively affected student outcomes. When faculty caring is perceived, students' academic achievement is enhanced. Faculty caring promoted student self-confidence, satisfaction, and motivation. Conversely, when faculty caring was not perceived by students, learning was obstructed. Students experienced a loss of motivation that impacted their desire to continue their studies. Further description is needed of what students perceive as caring behaviors though.

Student Perception of Faculty Caring

Qualitative and quantitative studies have been conducted to describe student perception of faculty caring behaviors. Lopez (2003) performed a qualitative study with 19 Jordanian baccalaureate nursing students that included 8 male and 11 female participants. In this study, effective clinical teachers were seen as mothers by their students regardless of whether the faculty person was male or female. Some of the faculty caring behaviors revealed in this study included guiding, supporting, sustaining, reinforcing, transforming, and releasing. The theme of releasing was described as allowing students to have the freedom and independence to further

develop their skills. The idea of mothering described the faculty caring role as nurturing and protective while allowing students room to grow.

Zamanzadeh et al. (2015) used the Nursing Student Perception of Instructor Caring scale (NSPIC; Wade & Kasper, 2006) to determine nursing students' perception of faculty caring in Iran. This instrument contains five subscales: instills confidence, supportive learning climate, appreciation of life's meanings, control versus flexibility, and respectful sharing. The study included 160 baccalaureate students; 67.5% were non-native to Iran. The highest perceived caring behavior subscales were respectful sharing (6-point Likert scale, $M = 5.22$, $SD = 1.20$) and instills confidence through caring (6-point Likert scale, $M = 4.73$, $SD = 1.01$).

Understanding of faculty caring behaviors was deepened by Labrague et al.'s (2016) exploration of nursing students' perceptions of instructors' caring across four countries including Greece, Philippines, India, and Nigeria using the NSPIC scale. This quantitative study included 500 nursing students in their second, third, and fourth years of their nursing program. Analysis of variance analysis (ANOVA) revealed significant differences between countries for the total mean NSPIC scale ($F = 3.703$, $p = .012$, $\eta^2 = 0.024$). Post hoc analysis using the least significant difference test indicated a statistically significant difference was found between the total mean NSPIC scale for Greece and Nigeria, respectively ($M = 4.164$, $M = 3.855$, $p = .008$). Additionally, the post hoc least significant difference test found a significant difference in the NSPIC total mean scores for Philippines and Nigeria ($M = 4.212$, $M = 3.855$, $p = .003$). No statistically significant difference was noted among India and other countries. The subscale instills confidence through caring was found to have the highest mean score (6-point Likert scale, $M = 4.268$, $SD = .064$). No significant differences were found with gender, age, or education level. This study demonstrated that although instilling confidence is a highly regarded

faculty caring behavior, differences might be noted between students of different cultures and ethnicities.

Barbour and Volkert (2021) used qualitative and quantitative analyses to explore faculty characteristics perceived by students, which demonstrated caring in the academic environment at a public university in southeastern United States that used caring science. Factor analysis found three highly significant factors that accounted for 90% of the variability in the study. The first factor was content-conscious, which was described by students as the effective and efficient delivery of content by faculty. Consumer-focused was the next factor students expressed as the purchase of a quality product that helped them reach their goal. The third faculty caring behavior was a cheerleader. This behavior was that of a mentor and emotional support figure. This study provided a broader picture of faculty caring behaviors. Although the third factor of cheerleader was similar to behaviors noted in previous studies, new behaviors were also identified.

These studies described student perceptions of faculty caring behaviors. Differences were noted across different countries and ranged from a mother figure to a content-conscious and consumer-focused provider. A consistent theme across all three studies was the caring behavior of cheerleader or supporter. This role provided emotional mentorship such as instilling confidence and support. Labrague et al. (2016) found differences between countries but not among gender, age, or educational level. The relationship of student demographics and perception of caring warrants further exploration.

Influence of Student Characteristics on Perception of Caring

Similar to previously described studies, Fifer (2019) used the NSPIC scale to explore the relationship of student perception of faculty caring and age, race, and employment status. The study included 152 prelicensure nursing students in the fourth quarter of their associate degree

nursing program (Fifer, 2019). Multiple regression analysis was used to determine the degree to which student characteristics predicted student perception of faculty caring. All five subscales of the NSPIC tool were analyzed. The findings demonstrated that although age, race, and employment status did not significantly predict student perception of faculty caring, age and race were positively correlated with all five factors. Students of increased age, which was defined as over 25 years, perceived greater faculty caring. Additionally, students of non-White race or ethnicity were associated with increased perception of faculty caring. Furthermore, increased hours of employment were associated with decreased perceptions of faculty caring. Like previous studies, the caring behavior of instills confidence was the highest ranked scale, followed by respectful sharing. The majority of respondents in this study were female (79.5%). Eliciting student perception of faculty caring from a male nursing student perspective is needed.

Meadus and Twomey (2011) conducted a qualitative study to describe the lived experience of male baccalaureate nursing students. This phenomenological study utilized focus groups to elicit information from 27 male participants. Five themes emerged from the analysis: choosing nursing, becoming a nurse, caring within the nursing role, gender-based stereotypes, and being visible and invisible. Participants described male nurse role models as influential in their decision to choose nursing. These nurses displayed competence and confidence, which generated motivation in prospective male students. Support of faculty increased satisfaction for the study participants. Positive feedback from faculty, especially clinical instructors, gave students the encouragement to continue in their studies. A negative faculty behavior noted by participants was gender-based stereotyping. Male students were identified to assist with heavy lifting in the clinical setting or care for violent patients. Additionally, participants in this sample felt visible/invisible. As a minority in the classroom, male students ‘stood out’ in the classroom

and were more often chosen to participate or answer questions. This study found many similarities between genders but also some experiences that were unique to male nursing students.

Expanding on the research of Labrague et al. (2016), Pajnkihar et al. (2020) sought to determine the student perceptions of faculty caring across cultures. The study sample included 604 nursing students in their first and third years of nursing school in four different countries: Slovenia, China, Croatia, and Russian Federation. The perception of caring was measured using the Caring Dimension Inventory (Watson & Lea, 1997). The 25-item questionnaire used a 5-point Likert scale with responses ranging from 1 = *strongly disagree* to 5 = *strongly agree*. The total sum score for this instrument ranged from 25-125 with higher scores indicating higher levels of caring behaviors. The Caring Dimension Inventory also categorized caring behaviors according to psychosocial and technical dimensions. The findings from this study suggested that nurses of different cultures perceived caring differently. Students in Croatia perceived the highest overall caring behaviors (M = 110.6, SD = 9.5) and the lowest overall was noted in China (M = 102.0, SD = 10.2). An ANOVA revealed a statistically significant difference in the perception of psychosocial (F = 8.28, $p < .001$) and technical dimensions of caring (F = 16.431, $p < .001$) between countries. Post hoc analyses using Tukey's honestly significant difference criterion indicated the highest psychosocial caring dimensions were found in Slovenia (M = 4.27, SD = 0.48) and the lowest were found in China (M = 4.1, SD = 0.42). Students in Croatia perceived the highest technical caring dimensions (M = 4.42, SD = 0.35) and students in China the lowest (M = 4.13, SD = 0.4).

These studies suggested that culture, gender, and age influenced students' perceptions of faculty caring. Pajnkihar et al. (2020) found not only differences in total overall caring behaviors

between countries but also differences in the perception of psychosocial and technical dimensions. Although male nursing students experienced similar caring behaviors to female students such as motivation and increased satisfaction, differences were also noted including gender-based stereotyping and male students being singled out from their peers (Meadus & Twomey, 2011). Although significant differences were not identified for age and number of hours of employment, correlations between the variables were found. Students of increased age perceived greater faculty caring while increased hours of employment were associated with a decreased perception of faculty caring (Fifer, 2019). A dimension not considered by these studies was the method of course delivery and the effect on students' perceptions of faculty caring.

Perception of Caring in an Online Environment

Caring is not only expected for in-person relationships but also for courses delivered in alternate formats. Many nursing programs deliver content in an online environment. Sitzman and Leners (2006) sought to explore student perceptions of how instructors conveyed caring in online education. The study sample consisted of 11 registered nurse (RN)-to-baccalaureate students—two males and nine females. Eight themes emerged from the qualitative analysis. Frequent feedback was needed to create an online caring environment. Timelines were important to acknowledge a student's work was received and grades were earned. Reciprocity was needed to nurture caring online; both faculty and students needed to be committed to teaching and learning. Empathy promoted online caring. This included faculty being sensitive to student personal issues and periodically checking in with students. Clarity promoted online caring by providing clear and thorough instructions for students to succeed in the course. Although content was delivered online, faculty being available by multiple means promoted students' perception of caring. Additionally, students perceived caring when faculty demonstrated a commitment to learning.

Lastly, students in an online environment expressed concern that they were not as important as face-to-face students in the program.

Sitzman (2010) replicated and expanded upon Sitzman and Leners' (2006) study that explored caring behaviors in an online nursing program. This study included a convenience sample of 122 online nursing students in traditional and RN-to-baccalaureate programs from five nursing programs. Participants ranked 24 Likert-scale statements describing a potential online instructor's behavior as *not important* to *extremely important*. Internal reliability for this study was determined by Cronbach's alpha (0.8313). Three behaviors were identified by 82% of respondents as extremely important. A fourth behavior was found by 73.6% of respondents to be extremely important. The data were then analyzed to identify themes. Themes that emerged included clarity and expertise, timeliness, empathic presence, and full engagement/accessibility. Qualitative narrative responses to an open-ended question were also analyzed to identify themes. Five attributes emerged from the qualitative analysis that included empathic presence, clarity and expertise, timeliness, full engagement and accessibility, and flexibility and openness. Empathic presence was described by students as trust the instructor would be there with compassion, support, and insight. Students noted that clarity and expertise of faculty were needed in the online environment so students could easily understand what was expected to be successful. Online students associated faculty caring with a timely response to emails and postings. Caring was supported by faculty demonstrating full engagement in the course that included at least weekly communication and encouragement throughout the course, availability to meet with students, and feedback on assignments, which demonstrated the student work was thoroughly read. Lastly, students stated that flexibility and openness provided caring in an online environment. Collaboration and compromise throughout the learning process demonstrated

flexibility. Examples by students included forgiveness for honest confusion and flexibility when life concerns conflicted with rigid course schedules.

Similarities and differences in student perceptions of caring behaviors were noted between in-person and online course delivery. In both learning environments, students valued empathy (Begum & Slavin, 2012; Mikkonen et al., 2015; Sitzman, 2010; Sitzman & Leners, 2006), expertise (Barbour & Volkert, 2021; Sitzman, 2010; Sitzman & Leners, 2006), and support (Barbour & Volkert, 2021; Begum & Slavin, 2012; Fifer, 2019; Komarraju et al., 2010; Labrague et al., 2016; Lopez, 2003; Meadus & Twomey, 2011; Mikkonen et al., 2015; Sitzman, 2010; Sitzman & Leners, 2006; Zamanzadeh et al., 2015). Students had additional expectations in an online environment though. When learning did not occur in-person, students needed clarity to promote understanding of expectations (Sitzman, 2010; Sitzman & Leners, 2006). Timeliness of faculty responses and instructor engagement were also needed to acknowledge students (Sitzman, 2010; Sitzman & Leners, 2006). Additionally, flexibility was highly regarded by students as a caring behavior (Sitzman, 2010).

Regardless of the type of learning environment, students might also experience uncaring faculty behaviors. Student perceptions of faculty caring could range from positive, to negative, or to the extreme of incivility. Further exploration of uncaring faculty behaviors is required.

Faculty-Student Incivility

Incivility is an overt demonstration of uncaring behaviors that violates the concepts of caring, respect, and human dignity. Unfairness, belittling remarks, and arrogance are all forms of incivility (Clark, 2008; Clark & Springer, 2007; Thomas, 2003). The hierarchy of the academic environment and increased pressure to succeed are thought to contribute to incivility (Lasiter et al., 2012).

Lasiter et al. (2012) conducted a secondary analysis of narrative descriptions from a previous survey study to explore students' statements of faculty behaviors perceived to be uncivil. Of the 152 senior baccalaureate nursing students from the original sample, 94 participants from two Midwestern universities included narrative descriptions. Four themes emerged from the qualitative analysis. First, students recounted uncivil behaviors that occurred in front of others. Critiquing or questioning behaviors and actions led students to feel incapable, unintelligent, and embarrassed. Secondly, students identified faculty talking about students to others as uncivil. Examples named by respondents included student errors, questions, and physical attributes. Since maintaining patient confidentiality is necessary, student privacy was also expected. Additionally, students described feeling stupid because of faculty comments or actions. The resulting feeling of not being good enough led to distress and insecurity and did not contribute to student learning. Lastly, students felt belittled and unimportant by uncivil faculty actions. Behaviors included faculty losing assignments, not replying to emails, or interrupting students. The result was a loss of student confidence.

Mott (2014) continued investigating this phenomenon by exploring student perceptions of the impact of perceived faculty bullying. Six students were included in this qualitative study and data saturation was reached. Face-to-face interviews were conducted with the participants. After data were coded, themes were identified, and the resultant themes were member checked with the study participants. Five themes emerged from the qualitative analysis. First, bullying is an emotional experience. The emotions experienced by participants included fear of failure and being dismissed from the program; frustration, anger, sadness, and depression; being made to feel stupid; and diminished self-confidence. Second, students stated that to give respect, one must be given respect. Additionally, resilience and persistence were key to overcoming bullying.

Furthermore, the environment was paramount; positive environments increase the approachability of faculty. Lastly, perception was reality. Students felt some behaviors constituted bullying but realized other individuals might have differing opinions.

Summary

Caring is a complex concept and our understanding of which continues to deepen. Since the call by the NLN in 1990 to include caring as a core value in nursing curriculum, much research has been conducted to explore caring in nursing education. Many positive student outcomes result when faculty caring is perceived including increased self-confidence, program satisfaction, motivation, and academic achievement. The most commonly cited faculty caring behavior perceived by students in an in-person learning environment was instilling confidence. In an online learning environment, additional caring behaviors were valued by students. Student perceptions of faculty caring could range from positive, to negative, or to the extreme of incivility. When negative caring behaviors were perceived by students, learning was obstructed. Differences in perceived faculty caring were found in students from different countries/cultures, gender, and age. Although these differences were noted, further exploration about the influence of whether students culturally identify with faculty is needed.

Degree to Which Students Culturally Identify with Faculty

Although there have been some overall increases in minority representation of nursing students since 2010, some populations are underrepresented compared to the general population (NLN, 2021). The ability to recruit and retain diverse student populations parallels the ability to recruit and retain diverse faculty (AACN, 2019). Racial and ethnic underrepresentation is also prevalent in nursing faculty. Factors that facilitate or hinder the academic experience of underrepresented students are explored including the influence of predominantly White nursing

faculty on the experience of underrepresented students. Additionally, students' perceptions of the lack of minority faculty and initiatives to promote diversity and success are discussed.

Factors That Facilitate or Hinder Academic Experiences

Multiple factors are determinants of whether a student is underrepresented. Two predominant factors in nursing include race/ethnicity and gender. Experiences of both racially/ ethnically and gender underrepresented nursing students are explored as related to the current study.

Experiences of Racially and Ethnically Underrepresented Students

Weaver (2001) used qualitative analysis of four open ended survey questions to explore the supports and struggles of Native American nursing students. The sample consisted of 40 Native American nursing students and nurses with 23 tribes or nations were represented. Of these respondents, 34% stated no support was available during their nursing program. Some participants indicated that student groups were beneficial. For students who attended a tribal college or native-specific program, 17% of respondents stated pursuing their degree at a tribal college or native-specific program was supportive, whereas others did not find the programs culturally aware. Many Native American students experienced cultural shock or struggled with cultural differences. Respondents did not feel the faculty understood the struggle of native peoples and were not prepared to help them. Other students found linear thinking difficult and some curriculum concepts were not part of native culture. Many students experienced stereotypes and racist attitudes including racist remarks stated about the culture and stereotypes in the classroom and faculty lectures. Participants also expressed feeling isolated and alone as an underrepresented minority in a nursing program. Native American students are the smallest

population of nursing students currently enrolled in nursing education (NLN, 2021) and few studies described factors that facilitated or hindered the academic success of this underrepresented minority.

Amaro et al. (2006) explored perceived factors that hindered or facilitated minority nursing student program success for 17 self-identified, ethnically diverse RNs who had graduated from a nursing program within the previous two years. The sample consisted of eight Asian, seven Latino, two Portuguese, two African American, and one African respondent. Qualitative analysis revealed themes of personal, academic, language, and cultural needs. Personal needs included lack of finances, insufficient time, family responsibilities, and language difficulties. Academic workload, need for tutoring, and the need for study groups posed the greatest academic concerns and were the prominent themes by respondents. Language was also a barrier for students who translated coursework from English to their native language and back again. Additionally, some students experienced prejudice because of their accents. Due to cultural differences, participants identified the desire for faculty to understand their needs and stated they lacked ethnic role models. Respondents identified the importance of teachers and the role of faculty as bridges or barriers to student success. Bridging teachers did not have to be of the same culture but rather be understanding mentors who were available and encouraging. Ethnically diverse faculty were considered especially beneficial because they had more patience and understanding of the needs of culturally diverse students.

Three qualitative studies focused specifically on the experiences of Hispanic nursing students (Bond et al., 2008; Rivera-Goba & Nieto, 2007; Villarruel et al., 2001). Similar themes emerged from all three studies regarding barriers and bridges to success. Barriers included financial, cultural, language and institutional factors. Financial need and socioeconomic status

were identified as significant barriers for students. Financial support was essential for Hispanic students to complete their nursing program (Bond et al., 2008). Cultural barriers also emerged as a consistent theme. Family was expected to come first (Bond et al., 2008; Rivera-Goba & Nieto, 2007; Villarruel et al., 2001). Women were culturally obligated to care for their family and men were the wage earners (Bond et al., 2008; Rivera-Goba & Nieto, 2007; Villarruel et al., 2001). Families might be supportive of a two-year nursing degree but not a four-year baccalaureate degree since an individual could become a nurse without the additional education (Villarruel et al., 2001). Students with an accent or English as an additional language identified language as a barrier; language differences were interpreted by faculty as lack of intelligence (Villarruel et al., 2001). Institutional barriers also emerged as a theme. Students experienced discrimination by faculty, which was intensified by the lack of role models or mentors within the institution (Rivera-Goba & Nieto, 2007; Villarruel et al., 2001). In contrast though, other students felt supported by their institution, especially by Hispanic faculty (Bond et al., 2008; Villarruel et al., 2001). Hispanic nurses in school, work, and clinical settings were identified as supportive role models and mentors (Bond et al., 2008; Rivera-Goba & Nieto, 2007). Furthermore, although family was a barrier to some students due to cultural norms, other respondents identified family as very supportive (Bond et al., 2008; Rivera-Goba & Nieto, 2007; Villarruel et al., 2001).

Diefenbeck et al. (2016) conducted a qualitative study that included 12 participants; seven identified as African American and five identified as Hispanic. Two areas emerged as both supportive and challenging. The first area was family. For some participants, family provided emotional support; whereas for others, their family was not understanding of their student experience. Many respondents identified financial stress as a barrier because their family was unable to provide financial support. Institutional supports and challenges also emerged as a

theme. Participants voiced the perception that Black students had to work harder than non-Black students for the same recognition by faculty. Students stated that faculty did not seem to care; individuals would be mixed up with other African American students. Institutional challenges were perpetuated by the lack of racial and ethnic diversity in faculty and students at the school.

These studies described the experience of racially and ethnically diverse students. Experiences that hindered or supported student success were not limited to racially and ethnically underrepresented students though. Men are also underrepresented in the nursing profession and experience barriers to their success.

Experiences of Gender Underrepresented Students

Two phenomenological qualitative studies were conducted in the United States to explore the lived experiences of male students in baccalaureate nursing programs. Similar themes that emerged from these studies were gender bias, classroom and clinical experiences, and role models. Gender bias was a recurring thread among participants. Classroom faculty consistently referred to the nurse as female in discussions and on exams; some class discussions excluded the male perspective, especially women's health topics (Powers et al., 2018). Although not extensively described, men felt they were treated differently for advising and exam review (Powers et al., 2018). Textbooks often contained gender stereotypes as well, referring to the nurse as ‘she’ (Petges & Sabio, 2020). Men voiced the desire not to be singled out by their gender and just be called ‘nurse’ rather than ‘male nurse’ (Petges & Sabio, 2020). Overall, faculty were considered welcoming and inclusive (Petges & Sabio, 2020) but participants expressed feelings of being singled out in the classroom and clinical setting (Powers et al., 2018). In some clinical settings, men were called on to perform heavy lifting or care for violent patients, which distracted from their own learning experiences (Powers et al., 2018). The greatest

concerns were seen in the childbearing rotation where men were perceived negatively by the nurses (Petges & Sabio, 2020; Powers et al., 2018). Patients were asked if it was acceptable to have a male nursing student and the researchers suggested the act of clinical instructors asking permission introduced bias in the setting (Powers et al., 2018). Male participants noted the lack of male faculty and nurse role models and stated that students benefitted when they had teachers that looked like them (Petges & Sabio, 2020; Powers et al., 2018).

Summary

Racially/ethnically and gender underrepresented nursing students experienced similarities and differences in their prelicensure nursing programs. Institutional barriers, lack of cultural awareness, racism, and lack of role models were prevalent in the stories of racially and ethnically underrepresented students. Male students also experienced gender bias, lack of role models, and being treated differently. Experiences of underrepresented students could be influenced by the environment of a predominantly White nursing program. These lived experiences of students in predominantly White programs are further explored.

Experiences of Underrepresented Students in a Predominantly White Program

Two qualitative studies explored the lived experiences of Black or African American students in predominantly White prelicensure nursing programs (Coleman, 2008; France et al., 2004). Participants in these studies expressed feelings of alienation and isolation based on race. Coleman (2008) found students perceived the environment responded to them differently. Students identified that they came from a less privileged background and they needed to use coping and survival strategies to overcome these differences, e.g., working harder or ‘playing the game’ (Coleman, 2008). One participant stated, “Whites had the privilege of relaxing”

(Coleman, 2008, p. 10). Challenges to success were also identified by students in both studies. To succeed, one must persevere even though one felt discounted (France et al., 2004). Participants voiced difficulty finding support systems and building relationships with faculty; White faculty displayed uneasiness and discomfort (Coleman, 2008). Students found the academic environment unfriendly and nonaccepting. Although students had a preference for faculty who shared their culture and experience, there were not enough non-White faculty to individually mentor all non-White students (Coleman, 2008). Furthermore, to overcome adversity, students displayed inner strength and resiliency Coleman (2008) suggested was an ancestral strength based on their racial membership and cultural spirituality.

Latino and American Indian students also experienced challenges in predominantly White nursing programs. Evans (2008) conducted a qualitative study that explored Latinx and Native American participants' perceptions about barriers to success compared to predominantly White nursing students in the program. Similar to Coleman and France et al. (2004), students experienced alienation and isolation (Evans, 2008). There were no minority faculty and few minority peers, which made it difficult for the respondents to relate to others. Additionally, faculty were not aware of their own White privilege and Eurocentrism in academia. White faculty were not aware of the existing racist status quo. Participants noted it was not that the faculty were uncaring, it was that they were not even aware it existed. The findings indicated only 1 out of 28 White students complained of difficulty contacting faculty, whereas 5 of the 14 underrepresented students identified a of lack of faculty accessibility.

Martin and Kipling (2006) described factors that shaped the experiences of Aboriginal nursing students in a Canadian province. The qualitative study was conducted at schools of nursing that actively recruited Aboriginal peoples and included a sample of 31 Aboriginal

nursing students, five Aboriginal nurses, 24 nursing faculty, and 16 key informants who were identified by the authors. The lack of cultural awareness of White nursing faculty was apparent in this study, which resulted in misunderstanding the inherent inequities for this population. Faculty mistakenly believed the students were well financed by their Band, which received funding from the government, but inadequate funding and lack of childcare were major concerns for the students. Although many participants received Band sponsorship to assist in funding their education, students relocated from their community, which led to additional living expenses. Students also perceived the influences of colonialism in education. Faculty assumed an understanding by all students regarding policies and standards that were referred to but not clearly explained. Racist comments were directed at or about Aboriginal students or people which reinforced Aboriginal students feeling dominated by White people. Most students remained silent, sensing a 'good nurse' followed the rules and did not question authority. Intersectionality of multiple factors affected the students' experiences. Faculty identified lack of preparedness to support Aboriginal students and recognized a need for strategies to connect with these students.

Ethnically and culturally underrepresented students in predominantly White nursing programs share many similar experiences. Black/African American, Hispanic, and Aboriginal students all voiced experiences of being perceived differently, difficulty finding support, lack of faculty cultural awareness, and the influence of colonialism in education. Although these racial and ethnic groups were represented in the literature, the voices of all underrepresented groups were not found. Further description is also needed regarding student perceptions of the lack of minority faculty in nursing education.

Student Perceptions of the Lack of Minority Faculty

Mills-Wisneski (2005) used descriptive statistics and qualitative analysis of an open-ended question to analyze student perceptions of the lack of minority nursing faculty. African American students from nine private and state universities in the North Atlantic and Southern United States were sampled with a response rate of 97% (N = 69). Fifty-one percent indicated the lack of African American faculty at their school was very important to them and an additional 20% indicated this was important. An open-ended question elicited narrative responses from 57 out of 69 participants. Five themes emerged from this study, which was consistent with previous studies that explored the lived experiences of underrepresented students in nursing programs. Over half of the respondents noted the lack of role models who mirrored their racial background; students wanted to see someone of the same culture with whom they could identify and know would support them. Participants also indicated that seeing African American faculty was beneficial for professional socialization and these faculty were easier to approach with questions. A lack of minority nursing faculty leads to a lack of representation in the university. African American nursing faculty presence motivates minority students to persevere and overcome challenges in the nursing program. Students also experience racism in their program and the presence of African American faculty might help to dispel or diminish discrimination for minority students.

Students are aware of the lack of minority faculty in nursing programs. They also see the need for greater representation of minority nursing faculty to promote student success. Students recognized that having more underrepresented faculty in nursing education could help to diffuse discrimination and racism apparent in nursing programs and some programs have been developed to promote diversity and success in nursing education.

Summary

Racially and ethnically underrepresented students share similar experiences in their nursing programs. Institutional barriers, lack of cultural awareness, racism, and lack of role models are prevalent. Additionally, male students are underrepresented in nursing education and experience the added factor of gender bias. Most nursing programs are predominantly White and this factor influences the experience of underrepresented students. These students experience being perceived differently, difficulty finding support, and lack of faculty cultural awareness. Underrepresented students recognize that the lack of minority faculty affects their experiences and want greater representation of minority nursing faculty to promote their student success and diffuse discrimination and racism on their campuses.

There were gaps in the literature regarding the experiences of underrepresented groups. Many underrepresented groups were not prevalent in the nursing education literature or represented in nursing programs; nor could all diverse student identities be represented. Currently there are not enough underrepresented nursing faculty to directly mentor underrepresented students. Although this review of the literature identified that supportive educators did not have to be of the same culture or ethnicity, students found it especially beneficial if faculty shared their similar background or experience.

Student Desire to Stay in a Program

The previous sections explored student perception of faculty caring and the experiences of underrepresented students. This section describes student demographic characteristics and intrinsic/extrinsic student factors associated with attrition, intrinsic and extrinsic factors associated with student perseverance, and initiatives that nursing schools have implemented to increase students' desire to stay in a program.

Student Demographic Characteristics Associated with Attrition

To promote student retention and success, nurse educators need greater understanding of the factors that influence withdrawal from a program. Salamonson et al. (2011) conducted a study to compare student characteristics with attrition and completion over a three-year period. The sample consisted of 352 full-time nursing students enrolled in a three-year university program in Sydney, Australia (response rate = 48%). Students were surveyed within the first three weeks of their first semester and then grades were collected throughout their remaining participation in the program. Logistic regression was used to analyze the relationship between variables. Being a native English speaker and program completion were the only variables with significant correlation (p = .012). Students who were native English speakers were twice as likely to complete their nursing program within the minimum timeframe for the program of study (*OR* = 2.00, 95% CI [1.17, 3.43]). Other variables evaluated included age, gender, marital status, previous nursing experience, and hours of paid employment.

Similarly, Evans (2013) explored the effect of noncognitive variables on students' intention to graduate. This study was conducted at eight prelicensure nursing programs in the North Carolina university system and included 407 first-time, full-time nursing students (response rate = 26.8%). The data analysis demonstrated that the multiple regression model (R^2 = .290) explained 29% of the variation in intention scores. The researcher found that females and students of increasing age had a lower intention to graduate. Conversely, minority students had higher intention to graduate scores than their non-minority student peers. Academic development, peer interaction, faculty concern, and working less than 15 hours per week were also associated with higher intention to graduate. The chi-square analysis of the respondents' demographics revealed the participants were similar only to the population in gender. Therefore,

the findings could only be generalized to that demographic variable. Evans stated that intention to leave was a powerful predictor of student attrition but this study's findings did not support that notion. Instead, the study's findings demonstrated a higher intention to graduate among this minority population (Evans, 2013). Consequently, other variables must influence student attrition.

Barbé et al. (2018) sought to explore other variables when comparing student attrition and social determinants of health. The study sample included 164 prelicensure junior baccalaureate nursing students in their first semester nursing course (response rate 96.5%). A descriptive, comparative design was used and the variables were measured with four tools: the Student Perception Appraisal-Revised was used to measure factors that restricted or supported student services, the Educational Requirements subscale measured academic confidence for students in nursing programs, the Rosenberg Self-Esteem Scale, and two items from the Perceived Stress Scale. Student survey data were merged with school demographic data and final course grades for the study analysis. A chi-square test was used to examine nominal level variables and a Mann Whitney U test was used for ordinal data. Table 4 shows the comparison of factors and the student's progression status. Student progression was significantly related to whether the student identified as White or a diverse racial background, being born outside the country, one or both parents born outside the United States, English as the primary language spoken in the home, the ability to purchase textbooks for the course, the ability to purchase electronic resources for the course, the ability to complete the readings for the course, self-perceived confidence to be able to review class notes after each class, and self-confidence in one's ability to adequately study before exams. Most notably, students who were more likely to be unsuccessful in their first semester nursing course were non-White, did not speak English as

the primary language in their home, and/or had one or more parents who were born outside of the United States. A limitation of this study was the sample was selected from one baccalaureate program. Additionally, the cumulative effect of these social determinants of health variables could not be assessed from the results.

Table 4

Comparison of Factors and Progression Status

Factor	Progressed	Did not Progress	Statistic	*p* value
	n (%)	*n* (%)	X^2	
Race			10.09	.002
Non-White	51 (35.7)	14 (73.7)		
White	92 (64.3)	5 (26.3)		
Born outside the U.S.			4.90	.043
Yes	15 (12.1)	5 (33.3)		
No	109 (87.9)	10 (66.7)		
Parent(s) born outside the U.S.			20.62	.001
Yes	29 (23.4)	12 (80)		
No	95 (76.6)	3 (20)		
English spoken in home			13.26	.001
Yes	106 (85.5)	7 (46.7)		
No	18 (14.5)	8 (53.3)		
	Mean Rank	Mean Rank	*U*	
Ability to purchase textbooks	65.0	92.2	537.0	.009
Ability to purchase electronic resources	64.6	95.4	489.5	.003
Ability to complete readings	65.7	86.4	624.0	.036
Academic confidence: Review class notes	69.4	48.1	601.0	.03
Academic confidence: Study adequately	69.4	48.4	606.0	.03

Note. Barbé et al., 2018.

These three studies illustrated the demographic and social determinants of health factors that influenced student attrition. Being a native English speaker was found to significantly affect student success (Barbé et al., 2018; Salamonson et al., 2011). Additionally, the student's gender, race and ethnicity, and whether their parents were born in the United States were also associated with student attrition (Barbé et al., 2018; Evans, 2013). Other student factors that influenced student attrition necessitate greater exploration.

Intrinsic Factors Associated with Attrition

Qualitative studies have been conducted to explore intrinsic student factors that are associated with program attrition. Evans (2007) described the experiences of 15 Hispanic/Latino and Native American students in a prelicensure nursing program. Feelings of isolation were reported by 62.5% of respondents (Evans, 2007). The author suggested that feeling isolated was a major factor in failure for minority students (Evans, 2007). Hoeve et al. (2017) continued this inquiry using qualitative analysis to examine factors that influenced student attrition. This study explored the phenomenon among 17 third- and fourth-year nursing students enrolled in a baccalaureate program at four universities in the Netherlands. Students participating in this study reported feeling unprepared for the demands of the profession and shared other personal circumstances that impacted their desire to stay in their program of study (Hoeve et al., 2017).

Extrinsic Factors Associated with Attrition

In addition to intrinsic factors, extrinsic student factors also impacted student attrition including faculty, family, and peer support; the quality of the nursing program; and financial considerations. Studies evaluating each of these factors are explored.

Lack of support from faculty has been found to influence student attrition in a program. Shelton (2003) explored this relationship in a sample of 458 students recruited from nine associate degree nursing programs in Pennsylvania and New York. Participants in this study were grouped as persisted throughout their program (Group 1, $n = 300$), voluntarily withdrew from the program (Group 2, $n = 83$), and those participants who were required to withdraw due to academic failure (Group 3, $n = 75$). Faculty support was measured using the Perceived Faculty Support Scale, which assessed both psychological and functional support measures. Cronbach's alpha for the scale was .96 in this study. An ANOVA revealed a significant difference ($F = 19.33$, $p < .001$) in the total perceived faculty support between students who persisted (Group 1) and those who voluntarily withdrew (Group 2), and students who were required to withdraw (Group 3). Post hoc analysis using the Scheffé test was used to show the mean differences between the groups ($M = 7.86$ [Groups 1 and 2], $M = 11.57$ [Groups 1 and 3]). No significant difference was found in perceived faculty support between students who voluntarily withdrew and those required to withdraw. The author suggested that nurse educators could influence academic success through their interactions with students. Functional faculty support could directly help students and facilitate learning, whereas psychological support measures provided a caring atmosphere and a mentoring relationship (Shelton, 2003).

Gardner (2005) explored minority student experiences in a predominantly White nursing program. The sample included 15 full time baccalaureate students who self-identified as an underrepresented racial or ethnic group. Lacks of peer, faculty, and family supports emerged as themes that impacted student retention. Lack of peer support created feelings of loneliness and isolation. Participants stated that students who felt alone would be more likely to drop out of a program. Lack of faculty support was also a theme that emerged in the analysis. The absence of

individual acknowledgment from teachers was noted by students. Participants longed to know that faculty understood and supported them. If faculty acknowledged that minority students experienced different challenges, they would be more likely to persevere in their program but if minority students are treated like everyone else, they were more likely to drop out. Lack of family support was also related to student attrition. One student commented, "You have so many other things that you have to do in the house before you can pay attention to your studies, and I think that is maybe why so many people (minorities) drop out" (Gardner, 2005, p. 160). Another participant's husband stated, "The day you go to school and can't take care of your other responsibilities, that's the day you have to quit" (Gardner, 2005, p. 160).

The study previously described by Hoeve et al. (2017) also examined extrinsic factors that impacted student attrition. The factors with the greatest influence were directly related to the nursing program. Themes that emerged in this qualitative analysis included the competence of the faculty, poor quality clinical placements, and lack of support from clinical mentors. Additionally, the organization of the program influenced student perceptions. One student stated, "I really disliked the organization of the training programme and I missed a lot of things. I considered stopping because of the lack of structure" (Hoeve et al., 2017, p. 31).

Lack of financial support was also found to impact student attrition. Diefenbeck et al. (2016) described the lived experience of seven African American and five Latina nursing students. One of the themes that emerged centered on challenges due to finances. Students described the stress of having to fully support themselves. One student stated, "I sometimes don't know if I was going to be able to pay for school since my family does not help" (Diefenbeck et al., 2016, p. 42). Students also stated they had to move back in with their family and work to support themselves while in school. Financial challenges were echoed in other studies, noting

that the barrier was more than the cost of tuition; and living expenses such as housing, food, and gas added up, especially if one could not work as many hours while in school (Bond et al., 2008; Rivera-Goba & Nieto, 2007).

Extrinsic student factors impacted student attrition. When students were not supported by faculty, family, and friends, they were more likely to voluntarily withdraw or be required to withdraw from a nursing program (Gardner, 2005; Hoeve et al., 2017; Shelton, 2003). Other extrinsic factors that influenced student attrition were related to the nursing program and lack of financial support (Diefenbeck et al., 2016; Hoeve et al., 2017). Student perseverance could also be impacted by intrinsic and extrinsic factors.

Intrinsic Student Factors Influencing Student Perseverance

Student motivation and determination are strong factors that influence perseverance. Four qualitative studies explored these intrinsic factors and the impact on students' desire to stay in a program.

In the study by Amaro et al. (2006) that was previously discussed, barriers to success and coping strategies were described by 17 self-identified ethnically diverse RNs who graduated from a nursing program within the previous two years. The greatest barriers to academic success included personal, academic, language, and cultural needs. Self-motivation and determination were identified by students as prominent factors for their success, the desire for a career in nursing, and determination to complete the program.

When Rivera-Goba and Nieto (2007) interviewed 17 Latina nursing students or recent graduates, marginalization and socioeconomic status were revealed as primary roadblocks to success but students stated that perseverance was a driving force. The desire to succeed influenced students by doing whatever was necessary. All participants in this study had

educational aspirations beyond their current degree. Students believed that academic attainment was needed to improve the quality of their life.

Similarly, Bond et al. (2008) described barriers and facilitators to success as revealed by 14 Hispanic baccalaureate students. Financial needs, cultural barriers, gender stereotypes, and lack of time were primary barriers identified (Bond et al., 2008). Students' determination to overcome these challenges was attributed to their motivation to be the first in their family to complete their degree. They also expressed a desire to succeed and give back to other Hispanic individuals who wanted to become a nurse.

Diefenbeck et al. (2016) described the lived experience of seven African American and five Latina nursing students. Family and school-based factors were both identified as barriers to academic success but the motivation to graduate was a sustaining factor. Students described their drive to finish what they started and revealed the only way to overcome struggles in life was to complete their degree.

These studies revealed the recurring themes of motivation and determination as sustaining factors that promoted student perseverance. Students described the desire for a career (Amaro et al, 2006) and a drive to finish no matter what (Diefenbeck et al., 2016; Rivera-Goba & Nieto, 2007). Some students wanted to give back to others in their ethnic group (Bond et al., 2008). Overwhelmingly though, there was a motivation and determination to overcome challenges to improve the quality of their life (Bond et al., 2008; Diefenbeck et al., 2016; Rivera-Goba & Nieto, 2007).

Extrinsic Student Factors Associated with Perseverance

Extrinsic factors could also impact student perseverance. Factors included the support of peers, family, and faculty; professional development and mentorship; and student financial

support. Qualitative and quantitative studies in the literature supported the influence of these factors.

Peers, Family, and Faculty Support

Taxis (2006) conducted a qualitative exploration of factors associated with retention and graduation of Hispanic students in a prelicensure baccalaureate nursing program. The nine students who participated in focus groups unanimously agreed that family support was the most important factor to persist in their nursing program (Taxis, 2006). Additionally, faculty and staff were only considered helpful and accessible when perceived as caring and respectful. Hispanic students found all-White faculty to be caring when they addressed students by name, students perceived authentic caring and fairness, and when students were given appropriate assistance (Taxis, 2006).

Dapremont (2011) examined the lived experiences of Black undergraduate prelicensure nursing students in a predominantly White program. The sample consisted of 18 participants at a university in the mid-Southern United States. Themes that emerged from the qualitative analysis centered on peer, family, and faculty support. Participants identified the need to develop relationships with White peers to succeed. White students were believed to have access to information needed such as notes or areas of focus for an exam. One respondent stated that developing relationships with White peers helped them to pass the final semester courses. Another participant stated their grades increased to ‘As’ as a direct result of developing relationships with White peers. Family support was another theme that emerged from this study. Participants stated the support of family helped them persevere when they were discouraged and considered quitting. Faculty encouragement and support also promoted a desire to stay in the program. Several participants considered withdrawing from the program and chose to stay due to

faculty encouragement. Conversely, other participants commented they were motivated to stay in the program and persevere against the odds when they were ignored by faculty.

Meadus and Twomey (2011) conducted a phenomenological study with 27 male prelicensure nursing students. Two themes emerged in the focus group analysis. First, students' desire to stay in a program was positively influenced by the support of family, friends, classmates, and faculty. Additionally, students reported that the feedback from clinical instructors kept them motivated to continue in the program.

Crary (2013) conducted a quantitative study to further explore this phenomenon. The sample consisted of 153 prelicensure nursing students at a Midwestern university. Multiple tools were used to measure the study variables. Supportiveness of the educator was measured with the Learning Climate Questionnaire (Cronbach's alpha = .92 in theory courses and .95 in clinical courses). Perceived competence was measured with the Perceived Competence Scale (Cronbach's alpha = .85 in theory courses and .89 in clinical courses). Lastly, motivation was measured with the Self-Regulation Questionnaire (Cronbach's alpha .69 for intrinsic goals and outcomes and .74 for external rewards or perceived approval). The study found intrinsic motivation was positively correlated with the support of theory educators ($r = 0.30$, $p < .001$) and support of clinical educators ($r = 0.24$, $p < .01$). Additionally, intrinsic motivation was correlated with perceived competence in theory ($r = 0.16$, $p < .05$) and perceived competence in clinical ($r = 0.19$, $p < .05$). The author suggested that competence and motivation could be factors that influenced students' desire to stay in a program.

Peers, family, and faculty could have a positive or negative influence on student perseverance. The findings of Taxis (2006), Dapremont (2011), Meadus and Twomey (2011),

and Crary (2013) reinforced the findings of Gardner (2005). The support of peers, family, and faculty support student retention and the lack of support influenced student attrition.

Professional Development and Mentorship

Participating in ethnic nursing student associations was another theme that emerged in the qualitative study by Amaro et al. (2006) as a beneficial strategy for underrepresented students to promote perseverance in their nursing program. These student organizations were run by peers who were further in their nursing program. Participants in this study stated that activities and events organized by the group provided motivation, support, and information about the expectations of the nursing program. Additionally, students voiced that the group offered a safe space to identify with other peers of their own ethnicity. However, not all students were able to participate in student professional organizations due to the scheduling of meetings, time barriers, and other responsibilities (Bond et al., 2008). For those students who did not have access to ethnic nursing associations, students found informal professional development through relationships with classmates of their same ethnicity with whom they can study together and share experiences (Rivera-Goba & Nieto, 2007).

Banister et al. (2014) described a mentoring collaboration with partner agencies. Junior and senior students of color were paired with an experienced, minority clinical nurse or nurse leader mentor. The goals of the mentoring program were to help minority students complete their degree and promote transition to practice. In addition to being caring and enthusiastic, mentors were found to display clear expectations and encouraged students to meet high standards. Students who participated in the mentoring program stated that academic success and professional development were promoted. Furthermore, the program offered financial support and networking, which was viewed favorably by program participants, and there was no attrition

among the 64 students who participated in the program. Students might also receive professional mentorship in their work setting (Bond et al., 2008). Nurses in the student's work setting knew they wanted to be a nurse and provided additional learning experiences for them (Bond et al., 2008).

Mentoring programs and organizations expose current students to more senior students, faculty, and professional nurses. These relationships promote professional development, encouragement, and support. Seeing another student or nurse of a similar culture or ethnicity who has been successful could motivate students to persevere in their program.

Financial Support

In addition to other extrinsic factors, financial support is pivotal for minority students to complete their nursing program. Evans (2007) described the influence of the Nursing Workforce Diversity Grant for Hispanic/Latino and American Indian students. The grant focused on recruitment and retention activities and served 96 nursing students at the study site during a three-year grant period. A 76-item Likert scale survey with two additional open-ended questions was used to evaluate the experiences of the grant recipients. A primary theme that emerged from the qualitative analysis of the open-ended questions was that the financial support provided by the grant promoted the perseverance of the students. The stipend allowed students to fulfill family financial obligations, spend less time working, and more time studying. Students stated they would not have been able to complete their degree without the stipend. The impact of financial support was also noted in other studies (Bond et al., 2008; Taxis, 2006). Adequate financial support and a supportive family were the strongest themes that emerged in the qualitative study of nine Latina baccalaureate nursing students by Taxis (2006). Similarly, a

participant in the study by Bond et al. (2008) stated, “I can honestly say that without those scholarships I wouldn’t be in this semester right now” (p. 138).

Initiatives to Promote Student Retention

Many initiatives have been implemented by nursing programs to promote student retention. Government agencies that support these initiatives include the U.S. Department of Health and Human Services (Sutherland et al., 2007) and the Health Resources and Services Administration (HRSA). Additionally, universities or nursing programs might allocate funds to support student retention efforts. The following initiatives are examples of strategies implemented to support the retention of underrepresented groups in nursing.

Sutherland et al. (2007) described an initiative funded by the U.S. Department of Health and Human Services to increase diversity of the nursing workforce through efforts to recruit, retain, and graduate underrepresented populations. The authors conducted a study to evaluate the outcomes for minority and disadvantaged grant recipients who participated in the university’s Affirming At-Risk Minorities for Success (ARMS) program. The sample included 64 ARMS students and 265 non-ARMS students. Program interventions included faculty-student advising and mentoring, tutoring, seminars for success, and students were provided with a laptop with educational software. The nursing program graduation rate was 98% for ARMS students as one student voluntarily withdrew due to pregnancy. Participation in the ARMS program did not significantly affect course grades except the Leadership course ($p < .001$). The ARMS participants had a higher course grade mean ($M = 88.9$, $SD = 3.2$) than non-ARMS students ($M = 85.5$, $SD = 5.8$). Narrative statements by ARMS students demonstrated strategies that might have positively influenced perseverance. Students stated the seminars for success offered by a Hispanic consultant provided support. The seminars helped with test-taking skills, anxiety

reduction techniques, and retention strategies. Anxiety reduction techniques included modalities such as imagery exercises. Students stated the ARMS program motivated them to overcome barriers and enhanced their self-confidence.

Wilson et al. (2010) evaluated a formal faculty mentoring program to improve the retention of disadvantaged students. Faculty received extensive preparation to become program mentors and participated in cultural competence training. Pre- and post-testing were conducted prior to and following the cultural competence training using the Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals. The program was funded by a federal Nursing Workforce Diversity grant and included pre-nursing program preparation, retention efforts for juniors and seniors, and financial stipends for disadvantaged students; however, faculty mentoring was the major focus for improving retention. Faculty participated in two workshops to become program mentors. Data from 30 student participants and 10 faculty mentors were collected from focus groups conducted annually over the three-year program period to evaluate the program outcomes. All students but one who participated in the program passed NCLEX on their first attempt. Qualitative analysis identified themes that emerged from the focus group data. Students described increased faculty support and academic enrichment. Participants stated they received a level of support they hadn't previously experienced which boosted their self-confidence and ability to succeed. The student perception of the nursing profession was enhanced by the faculty mentoring. Additionally, students stated that the mentoring enhanced their study skills, note taking, and test taking abilities. The authors suggested that mentoring was an effective strategy to promote retention and thereby increased the diversity of the nursing workforce; sensitive, caring, and culturally competent faculty could improve retention of disadvantaged students.

Georges (2012) described a recruitment and retention initiative developed to address the Hispanic ethnic nursing disparity in the Bronx, New York. The area college noted that in 2006, 53% of the college but only 8% of nursing students identified as Hispanic. Strategies implemented included tutoring, nursing exam review sessions, summer externships with weekly seminars, monthly group meetings, mentoring and coaching, financial assistance, seminars with Hispanic leaders, NCLEX preparation, study skills development, and faculty cultural diversity and competence training to increase awareness and sensitivity. At the end of the three-year project, Hispanic student representation in the department increased from 8% to 26%. There was also a 60% increase in Hispanic men in the nursing program. During the three-year program implementation, 31 Hispanic students successfully completed the nursing program and all but one passed the NCLEX on the first attempt. Furthermore, 10 of these students went on to complete or enroll in a master's program. The author suggested that student contact with the project coordinator helped to increase participation and student retention since the ethnicity of the coordinator overcame language barriers by communicating with students in Spanish when preferred. Early intervention following low grades, missed class, or missed assignments was also identified as an effective strategy to promote student success.

Health Resources and Services Administration funding has also been used to support recruitment, retention, and graduation of underrepresented nursing student populations. Colville et al. (2015) described a model that was implemented at the Community College of Allegheny County, Pennsylvania. The program included financial assistance, academic support, social support, and mentoring. The HRSA grant funded tuition stipends, support for living expenses, and tutoring by licensed nurses. Prior to graduation, the students participated in a three-day, face-to-face NCLEX preparation program that included Assessment Technologies Institute

benchmark testing and study plans. Nursing faculty served as case managers and directed students to social and human support services that were provided by social workers. Students also participated in mentoring opportunities including workshops on nursing issues, networking with alumni and recent program model graduates, and a support network that was developed. Prior to implementation of this model, only 30% of minority students completed the nursing program; there was a 54% attrition rate of minority students in the first year. Of the minority students who graduated from the nursing program, only 65% passed NCLEX on the first attempt. During the five-year grant period, the graduation rate for students in the program increased to 84.5%. Most students in the program took advantage of NCLEX preparation activities and passed NCLEX on the first attempt. Tutoring, mentoring, and the services provided by the social worker were identified by students as pivotal strategies that impacted their success.

Tab (2016) also described an initiative supported by HRSA funding. The program included peer tutoring, faculty mentoring, NCLEX preparation, leadership and professional training, diversity training, and study and time management skills workshops. Grant funding provided scholarships that assisted with tuition, books, transportation, and other expenses. Students enrolled in the nursing workforce diversity project had a retention rate of 93%. A total of 68 students participated in the program and five students were dismissed due to failure of two or more courses. The first-time NCLEX-Registered Nurse (RN) pass rate for graduates of the program was 96%. Students completed a survey to evaluate the faculty mentor program. Each survey item was evaluated on a 5-point Likert scale. Participants rated faculty mentors' availability (M = 4.86, SD = 0.30), encouragement (M = 4.96, SD = 0.08), support and feedback (M = 4.84, SD = 0.38), and student satisfaction (M = 4.87, SD = 0.33). The student retention rate, NCLEX-RN pass rate, and faculty mentor evaluation data were indicators of the program's

success. Tab suggested that peer and faculty mentoring were effective strategies to promote retention and NCLEX success for minority students.

Initiatives backed by grant funding and university support positively impacted student retention and desire to stay in a program. Underrepresented minority groups were most often the participants selected for program inclusion to increase the diversity of the nursing workforce. Most initiatives were multifactorial and aimed to minimize or alleviate barriers to students' success. Some of the strategies included financial support, faculty advising, mentoring, study skills and tutoring, professional development, and NCLEX preparation. These programs were proven successful in supporting students.

Conclusion

This chapter provided a description of the two theoretical frameworks that informed this study: Madeleine Leininger's (Leininger & McFarland, 2006) CCT and Jean Watson's (2008) THC. When used together, these theories provided a foundation for understanding the cultural lens of the student and faculty and how the individuals came together in a transpersonal caring relationship permeated by caring consciousness, intentionality, and energetic presence.

The student's experience in a nursing program was influenced by many factors. One variable was the faculty-student caring relationship. A positive caring relationship could increase student outcomes, whereas a negative faculty-student relationship could impair learning and student success. Differences in student perception of faculty caring have been shown to be influenced by country of origin, ethnicity, culture, gender, and age. Similarly, the degree to which students culturally identified with faculty influenced the student's academic experiences. These factors could be exacerbated when students did not see their identity represented in the nursing program faculty. To increase the diversity of the nursing workforce, more nursing

graduates are needed from underrepresented groups; but student attrition and retention were also affected by student demographic characteristics, intrinsic student factors, and factors extrinsic to the student.

Nursing faculty do not culturally mirror the student body nor could all forms of diversity be represented in a faculty group. A gap in the literature that has not been explored was the influence of both the student perception of faculty caring and the degree to which a student culturally identified with faculty. Therefore, the purpose of this study was to empirically analyze the extent to which prelicensure nursing students' desire to stay in their program of study was explained by students' cultural identification with their nursing faculty and students' perception of faculty caring.

CHAPTER III

METHODOLOGY

The purpose of this study was to empirically analyze the extent to which prelicensure nursing students' desire to stay in their program of study was explained by students' cultural identification with their nursing faculty and students' perception of faculty caring. The study was guided by the following research questions:

Q1 To what extent do prelicensure nursing students' perception of faculty caring and students' cultural identification with their nursing faculty, predict students' desire to persist in their program?

H1 There will be no statistically significant relationship between prelicensure nursing students' perception of faculty caring, students' cultural identification with their nursing faculty, and students' desire to stay in their program.

Q2 What is the relationship between prelicensure students' cultural identification with their nursing faculty and student agreement with individual caritas process statements?

H2 There is no statistically significant relationship between prelicensure students' cultural identification with their nursing faculty and student agreement with individual caritas process statements.

Research in this area is significant for both nurse educators and prelicensure nursing students. Positive patient outcomes are promoted when nurses reflect the diversity of the patient population (NASEM, 2021). To increase diversity among nurses, nursing schools need more diverse graduates from prelicensure nursing programs but attrition is greater among students with diverse racial, ethnic, and cultural backgrounds (Barbé et al., 2018; Harris et al., 2014; Veal et al., 2012). Nurse educators must identify strategies to support diverse student populations to promote retention and successful program completion for all students. Factors that support

student retention are complex but two variables assessed in this study were students' cultural identification with their faculty and students' perception of faculty caring. By identifying the extent to which these variables influenced student retention, resources could be directed to have a positive impact on student success.

Methods

Design

A cross-sectional, correlational design was used to guide the study. This method was utilized to describe relationships between variables (Gray et al., 2017). An experimental or quasi-experimental design was not chosen because it would not be appropriate to manipulate the independent variables of faculty caring or students' cultural identification with their faculty.

A structured survey was administered for data collection. Structured survey questions and response options allowed for comparison among respondents (Wood & Ross-Kerr, 2011). Surveys are a beneficial method of collecting quantitative descriptions of attitudes and opinions to analyze for associations (Creswell & Creswell, 2018). The method was advantageous because it was economical, easily distributed to numerous nursing schools to increase the diversity of the study sample, and simple to complete; the design allowed for rapid turnaround for data collection and the target population had electronic access to complete a survey (Creswell & Creswell, 2018). A disadvantage of surveys was the possibility of a low response rate but this was outweighed by the ability to reach a diverse population. Although an interview method would allow for clarification of questions and possibly a higher response rate, the ability to access a geographically diverse population easily and inexpensively was precluded by this technique (Wood & Ross-Kerr, 2011).

Setting

This study was conducted at three prelicensure nursing schools in the United States that had a cultural or ethnic student nursing organization. Schools were chosen to meet the minimum sample size needed and potential for recruiting a diverse sample population. Students in post-licensure baccalaureate or graduate programs were excluded from participation as their previous relationships with nursing faculty might alter their expectations and affect survey responses. By selecting schools in different regions of the United States, greater student diversity might be represented.

Sample

A convenience sample of prelicensure nursing students was solicited. Students were at least 18 years of age when completing the survey and had completed at least one semester of their nursing curriculum. The inclusion criterion of completing at least one semester of nursing courses ensured the respondents had the opportunity to develop relationships with faculty members. There were no exclusion criteria.

An a priori power analysis was conducted using G*Power to determine the needed sample size for a desired α level, power level, and the effect size to be detected (Faul et al., 2009). G*Power is a power analysis program commonly used in social and behavioral sciences to control type-1 and type-2 error probability (Faul et al., 2009). A sample of 68 respondents was needed based on a standard multiple regression test with a medium effect size ($d = 0.15$), $\alpha = 0.05$, power = 0.80, and two predictors. To run a two-tailed Spearman correlation coefficient test, a total sample size of 82 respondents was required for a medium effect size ($d = 0.30$), $\alpha = 0.05$, and power = 0.80.

Measurement Methods

Data were collected by means of an electronic, structured survey using Qualtrics. The survey consisted of a 10-item Likert scale with one optional free-response question (see Appendix B), two visual analogue scale (e.g., slider) questions (see Appendix C), and nine demographic questions (see Appendix D). The survey required approximately five minutes to complete.

Caring Factor Survey-Caring of Faculty

The Caring Factor Survey-Caring of Faculty (CFS-CF; J. Nelson, personal communication, June 22, 2021) is a 10-item scale designed to assess students' perception of faculty caring. The survey was adapted from the revised Caring Factor Survey (CFS; DiNapoli et al., 2010). The revised CFS was developed from the original CFS (Nelson, 2006).

The original CFS was created to measure caring as reported by patients and family members and underwent initial psychometric testing studies in 2006 and 2007 (Nelson et al., 2019). Instruments that measured caring prior to this time utilized carative factors from the original theory of human caring (THC; Watson, 1979) rather than the updated caritas processes in the revised THC (Watson, 2008). The original CFS included 20 positively phrased statements measured with a 7-point Likert scale—two to measure each caritas process (Nelson et al., 2019). Table 5 provides a comparison of the statements from each scale.

Table 5

Comparison of Caring Factor Survey Scales

Caritas Process	Statements from the Original CFS (Nelson, 2006)	Statements from the Revised CFS (DiNapoli et al., 2010)	CFS-CF Statements (J. Nelson, personal communication, June 22, 2021)
Practice loving kindness	1. Every day I am here, I see that the care is provided with loving kindness. 2. Overall, the care I have received from the staff at the facility has been provided with loving kindness.	Every day I am here, I see that the care is provided with loving kindness.	Every day that I am at school, I can see faculty in this program interact with students with kindness.
Decision making	1. I believe the healthcare team I am currently working with solves unexpected problems really well. 2. As a team, my caregivers are good at creative problem solving to meet my individual needs and requests.	As a team, my caregivers are good at creative problem solving to meet my individual needs and requests.	Faculty in this program engage in creative problem solving with me to meet my individual education needs and requests.
Instill faith and hope	1. The care providers honored my own faith, helped instill hope, and respected my belief system as part of my care. 2. While in this facility, my caregivers helped support my hope and faith during their care for me.	The care providers honored my own faith, helped instill hope, and respected my belief system as part of my care.	Faculty in this program respect my hope and belief system as part of my educational experience.
Teaching and learning	1. When my caregivers teach me something new, they teach me in a way that I can understand. 2. My caregivers are responsive to how I learn and whether I am ready to learn when teaching me something new.	When my caregivers teach me something new, they teach me in a way that I can understand.	When faculty in this program teach me something new, they teach me in a way that I can understand.

Table 5 Continued

Caritas Process	Statements from the Original CFS (Nelson, 2006)	Statements from the Revised CFS (DiNapoli et al., 2010)	CFS-CF Statements (J. Nelson, personal communication, June 22, 2021)
Spiritual beliefs and practices	1. My caregivers were very respectful of my individual spiritual beliefs and practices. 2. My caregivers encouraged me to practice my own individual spiritual beliefs as part of my self-caring and healing.	My caregivers encouraged me to practice my own individual spiritual beliefs as part of my self-caring and healing.	Faculty in this program encourage me to practice my own, individual, spiritual beliefs as part of my personal growth within my education and learning.
Holistic care	1. I know my healthcare team will help meet my physical needs as well as my emotional and spiritual needs. 2. My caregivers have responded to me as a whole person, helping to take care of all my needs and concerns.	My caregivers have responded to me as a whole person, helping to take care of all my needs and concerns.	Faculty in this program respond to me as a whole person, helping to take care of my needs and concerns.
Helping and trusting relationship	1. My caregivers have established a helping and trusting relationship with me during my time here. 2. Everybody on my healthcare team value relationships that are helpful and trusting.	My caregivers have established a helping and trusting relationship with me during my time here.	Faculty in this program have established a helping and trusting relationship with me.
Healing environment	1. This facility and its care providers have created an environment that helps me to heal physically and spiritually. 2. My healthcare team has created a healing environment that recognizes the connection between my body, mind, and spirit.	My healthcare team has created a healing environment that recognizes the connection between my body, mind, and spirit.	Faculty in this program have created an environment of learning that recognizes the connections between my mind, body, and spirit.

Table 5 Continued

Caritas Process	Statements from the Original CFS (Nelson, 2006)	Statements from the Revised CFS (DiNapoli et al., 2010)	CFS-CF Statements (J. Nelson, personal communication, June 22, 2021)
Promote expression of feelings	1. My care providers encourage me to speak honestly about my feelings, no matter what my feelings are. 2. I feel like I can talk openly and honestly about what I'm thinking, because those who are caring for me embrace my feelings, no matter what my feelings are.	I feel like I can talk openly and honestly about what I'm thinking, because those who are caring for me embrace my feelings, no matter what my feelings are.	I can talk openly and honestly about what I am thinking, because the faculty in this program embrace my thoughts, no matter what my thoughts are.
Miracles	1. I feel like if I told my care providers I believe in miracles, they would support me in my belief. 2. My caregivers are accepting and supportive of my beliefs regarding a higher power, which allows for the possibility of me and my family to heal.	My caregivers are accepting and supportive of my beliefs regarding a higher power, which allows for the possibility of me and my family to heal.	Faculty in this program are accepting and supportive of my beliefs allowing for me to believe even the impossible can happen.

Original Caring Factor Survey Validity. Face, content, criterion, and predictive validity were estimated for the original CFS scale. Face validity was the determination that the instrument appears to measure the construct of interest (Gray et al., 2017). One author, in collaboration with the THC theorist Jean Watson, assessed the CFS for face validity (Nelson et al., 2019). Content validity was the extent to which the scale measured all major elements relevant to the construct of interest (Gray et al., 2017). All four authors of the CFS were in 100% agreement that the survey reflected the caritas processes (Nelson et al., 2019). Criterion validity was estimated by comparing the CFS to what was determined to be the most comparable scale, the Caring Assessment Tool (Duffy, 2002), that used Watson's (2008) carative factors. The

researchers chose to accept a Pearson correlation of .69 (p = .06) as significant at the established .10 level. A p-level of .05 was considered too stringent and might lead to the possibility of type II errors (Nelson et al., 2019). Predictive validity was calculated with four patient care units that implemented a caring intervention and four control patient care units. A comparison of the mean scores from the intervention and control units demonstrated that the treatment unit group reported greater caring but the scores were not statistically significantly different (Nelson et al., 2019).

Original Caring Factor Survey Reliability. Internal consistency was used to determine how items related to each other and to the total scale score. Cronbach's alpha (α) for the original CFS was determined with three studies that included 160 patients (α = .97), 84 patients (α =.97), and 232 patients and 79 family members (α =.98; Nelson et al., 2019). Item-to-total and inter-item correlations reached the .001 significance level. Item-to-total correlations for the 20 statements ranged between .81 and .91 for patients and .80 and .93 for family members (Nelson et al., 2019). Inter-item correlations ranged between .58 and .92 for patients and .49 and .93 for family members (Nelson et al., 2019). No increase in the Cronbach's alpha was noted if any items were deleted.

Revised Caring Factor Survey Item Reduction and Reliability. In 2010, DiNapoli et al. conducted studies to reduce the 20-item original CFS to a valid 10-item revised version that measured the concept of caring using the 10 caritas processes. Two methods were used for survey reduction. First, two 10-item scales were developed by dividing the original paired 20-statements into a Model A and Model B that were tested on a sample of 89 patients and family members (DiNapoli et al., 2010). The paired item with the stronger loading factor was then chosen for a Model C. Reliability testing of Model C demonstrated an alpha = .95 with a sample

size of 95 participants. The second method was conducted using component factor analysis from combined secondary data collected from three studies (N = 450; DiNapoli et al., 2010). The data were consistent across all three studies and the stronger loading statements were chosen for the final model. A Model D was chosen as the final revised version of the 10-item CFS, which demonstrated factor loadings for each statement ranging from .833 to .891 (DiNapoli et al., 2010). Reliability testing was conducted with a sample of 450 nurses in three facilities that resulted in a Cronbach's alpha of .89 (DiNapoli et al., 2010).

The Caring Factor Survey-Caring of Faculty. The CFS-CF (J. Nelson, personal communication, June 22, 2021) was modified from the 10-item revised CFS to measure student perception of faculty caring. Each item on the survey corresponded with one of the 10 caritas processes identified in Watson's (2008) THC. Content validity of the CFS-CF was established by two clinicians, two faculty, and two caring science experts (J. Nelson, personal communication, June 22, 2021). Each of the 10 items was answered using a 7-point Likert scale ranging from *strongly disagree* (response = 1) to *strongly agree* (response = 7). The respondent's scores were summed for total scale scores ranging from 10 - 70 with a higher composite score indicating a greater perceived sense of caring. All items on the scale were phrased positively and no reverse coding was needed. One optional text entry question followed the 10-item Likert scale that asked the respondent, "Please describe the attitude, behaviors, and/or actions which led to your answers" and the respondent could proceed in the survey without answering this question.

Desire to Stay in a Program and Cultural Identification

A pilot study survey was conducted with 80 prelicensure baccalaureate nursing students to assess the clarity and content validity of the measurement for the two investigator-designed statements indexing the variables of desire to stay in a program and cultural identification with

faculty. Clarity was assessed to determine that the item wording was clear and content validity assessed that the item and provided definition were consistent. Additionally, participants had an optional free text space to include what they thought about when presented with the item. The survey response rate varied by item; 17.5% (N = 14) replied to item 1 and 13.75% (N = 11) replied to the remaining items.

Item 1 assessed the variable, desire to continue in a program. Clarity of the item was supported by 92.86% (N = 13) of the respondents. Although the item was clear, only 57.14% (N = 8) of respondents agreed that the item wording and definition were consistent. The provided definition stated, “The desire to stay in a program is defined as a student’s internal feeling of wanting to persist in the program of study through graduation or a motivation to continue. It encompassed more than just an intent to stay which could occur without desire, such as the need for a degree to achieve financial stability.” The respondents’ qualitative statements indicated the statement was measuring persistence as determined by a student’s perception of the cost versus benefit of continuing and not just desire. The student perception of the item’s meaning was considered an acceptable definition of the variable. The item wording was kept but the definition was removed in the data collection for the dissertation study.

The next item assessed the clarity and content validity of the variable, cultural identification with faculty. All respondents agreed the statement was clear and 90.1% (n = 10) indicated the definition was a good fit for the item. One student stated, “I think the definition encompasses all the main components of cultural identification.” Students indicated they thought about concepts such as cultural identification, ethnicity, race, gender, language, socio-economic status, shared background, and shared identity when presented with the item.

The remaining two items were to determine if ethnic and/or racial identity should be separate items to measure cultural identification. Students indicated the item to measure ethnic identification with faculty was somewhat clear (n = 8; 72.72%). The qualitative responses suggested that students did not think the definition was broad enough though. Some student examples described ethnicity, whereas other examples described race or skin color. The item to measure racial identification was clear to 90.91% (n = 10) of respondents but the qualitative responses were negative. Students stated, "I would find this [item] extremely offensive" and "I would think that there is some ulterior motive to this question and be suspicious of this." Another respondent stated, "Every time I see this question in applications I get upset because the word 'Caucasian' encompasses many people who are truly not the [same] background or race, same with 'Black,' there are so many different peoples under this umbrella as well." Based on the lack of clarity for the ethnic identification item and the qualitative responses for the racial identification item, neither of the items was used in the final dissertation survey. Respondents' qualitative remarks to cultural, ethnic, and racial identification statements indicated that cultural identification with faculty was broad enough to encompass all aspects of this variable; this approach was supported by Leininger's (Leininger & McFarland, 2006) CCT.

Cultural Identification with Faculty. In the final dissertation study, students' cultural identification with their faculty was assessed using one visual analogue scale (e.g., slider) question that stated, "I culturally identify with faculty in my nursing program." The respondent slid the indicator on a scale of 0-100 with two anchors listed on each end of the scale: *Strongly Disagree* (0) on the left and *Strongly Agree* (10) on the right. Visual analogue questions provided a continuous level of measurement for evaluation and allowed the respondent greater freedom in their response to the statement. A definition was included prior to the item that stated, "Culture is

defined as our learned and shared values and beliefs that guide one's thoughts, actions, and behaviors (Leininger & McFarland, 2006). An individual might identify with a cultural group based on many factors such as (but not limited to) one's gender, gender identity, sexual orientation, age, religious beliefs, political beliefs, geographical region where one lives, physical ability, language, socio-economic status, or other attributes."

Students' Desire to Stay in a Program. Students' desire to stay in their program was also assessed using one visual analogue question: "I want to continue in my current nursing program." The respondent slid the indicator on a scale of 0-100. Two anchors were listed on each end of the scale, *Strongly Disagree* (0) and *Strongly Agree* (10). No definition was included prior to the item.

Demographic Data

Demographic data were collected to understand the characteristics of the sample. Variables that described the diversity of the sample included age, gender, sexual orientation, race/ethnicity, whether the respondent or their parents were born outside of the United States, and the language spoken at home. All demographic responses had an option if the respondent did not wish to answer and 'other' if the response choices did not describe the respondent's self-concept. Additionally, the respondent was not required to complete the demographic questions to proceed with the survey. Nominal measurement responses were listed in alphabetical order to not reinforce a social norm that might discriminate against respondents.

Ethical Considerations

Ethical standards were maintained throughout the study. Because this study involved human subjects, the research proposal was submitted to the academic institution's Institutional Review Board (IRB). The IRB ensured that human rights were protected by requiring researchers

to assess the potential risks to participants (Creswell & Creswell, 2018). After receiving IRB exemption approval, recruitment began at nursing programs with which the researcher was not affiliated (see Appendix E).

The researcher conducted an online search and corresponded with personal contacts to identify programs with cultural and ethnic nursing student organizations to increase the diversity of potential respondents. Administrators at multiple schools in different geographic regions of the United States were invited to have their students participate (see Appendix F). After a school agreed to forward the survey to their prelicensure nursing students and IRB exemption was approved by the participating site, an email was sent to the school contact person for distribution.

Potential student participants received a recruitment email from their school's study contact person that included the informed consent (see Appendix G). The participant email invitation described the study and potential risks, provided directions for participation, and included the participant's informed consent. Students were reminded that participation was voluntary and they could exit the survey or decline participation at any time. After reading the recruitment letter with the informed consent, students who wanted to participate proceeded to the study's survey questions. By proceeding to the survey questions, students gave permission to be a study participant. The researcher's contact information was available to respondents should they have further questions about the study.

There was minimal risk to study participants. Respondents might have experienced mild discomfort if the survey questions reminded them of uncomfortable relationships with faculty members. Although there might not have been a benefit to current students, the study might benefit future students by revealing areas in which student-faculty caring could be improved and thereby improve students' desire to stay in their program of study. Confidentiality of data was

maintained by only allowing the researcher access to the survey responses in Qualtrics. Downloaded data were kept on a password protected computer in a password protected file.

Data Collection

An electronic, self-report survey method was used for data collection. The survey was designed using Qualtrics, which permitted distribution by email and uploading the data collected to SPSS for analysis. The number of survey questions was limited to decrease the response burden and open-ended questions were minimized because respondents are more likely to exit a survey when open-ended questions were presented (University of Northern Colorado, 2022).

The self-report survey consisted of the 10-item CFS-CF and one optional free-response question, and two visual analogue questions. Additionally, demographic data were collected. A follow-up survey was emailed seven days later expressing gratitude for those who already participated and appreciation for those considering completing the survey (see Appendix H). Although the minimum sample size was achieved at the first school surveyed, participants from two additional sites were recruited to increase the diversity of the sample.

At the completion of the survey, respondents had the option to include their email address to indicate interest in possible compensation. The first 100 participants who indicated interest received a $10 Amazon electronic gift card. Small incentives can be beneficial to encourage participant response and compensate for the time and effort to participate in the study (Gray et al., 2017). After the data collection was completed, the collected email addresses were downloaded and saved in a password protected file separate from the survey data on a password protected computer. The first 100 participants were notified by email with the electronic gift card attached.

Following survey distribution and achievement of the minimum sample size of responses, the data collected were exported from Qualtrics into the IBM Statistical Package for the Social Sciences (SPSS). The data were saved electronically on a password protected computer and password protected file. After the data were exported, the survey was deleted from Qualtrics.

Data Analysis Plan

Data analysis was a multistep process that began with cleaning the data to verify that all data values were valid and usable (Plichta & Kelvin, 2013). After the data file was exported from Qualtrics and opened in SPSS, a master raw data file was saved and a working draft file created. In the SPSS data view, columns with irrelevant information were removed such as survey completion start, end, and duration (Fox, 2020). Additionally, data from five surveys with incomplete visual analogue items were deleted since these individual items measured a complete variable. Remaining data for the CFS-CF were complete and no other surveys were deleted. The final sample consisted of 280 participants.

Further data cleaning was completed in the SPSS variable view. In the ‘name’ column, the question names were labelled for easier identification during analysis (Fox, 2020). The data types were reviewed and updated to be correctly categorized. The number of decimal places for data values was verified and the label was shortened to be easily viewable in a table or chart. Although the data values were created when the data were exported to SPSS, the values were verified for accuracy and the measurement levels confirmed (Fox, 2020).

Preliminary Descriptive Analysis

Preliminary descriptive analysis was conducted for the variables including the mean, median, standard deviation, variance, skewness, kurtosis, and range. This provided information about the general distribution of responses and the analysis helped to determine if there was

sufficient spread or if the data lacked variance. For items showing abnormalities, the content of the items was examined to note any patterns and the histograms were analyzed for further information.

Reliability and Item Analysis

Psychometric procedures to assess reliability and item analysis of the CFS-CF scale were performed. The internal consistency reliability was estimated with Cronbach's alpha coefficient that determined the degree to which items on the scale measured the same construct (Creswell & Creswell, 2018) and whether multicollinearity might be present. The internal consistency was quantified by a Cronbach's alpha result ranging from 0 to 1 with a desired result greater or equal to 0.7 (Creswell & Creswell, 2018) but less than .96. Since the CFS-CF scale had been modified from the original CFS, the original scale's reliability might not be true for the modified instrument and the reliability needed to be estimated (Creswell & Creswell, 2018).

Additionally, the inter-item correlations of the CFS-CF scale were assessed. Inter-item correlations should be greater than 0.3; items less than 0.3 might not be measuring the same phenomenon (How2stats, 2011). The item-total statistics were then analyzed and items less than 0.3 would be deleted from analysis if the Cronbach's alpha if item is deleted was greater than the total Cronbach's alpha for the scale to improve the internal consistency.

Demographics

The sample characteristics were reviewed using descriptive statistics to understand the study population (Plichta & Kelvin, 2013). All nominal demographic data were analyzed in SPSS and the percentage frequency was reported (Ruvalcaba, 2020). Survey responses were not deleted due to incomplete demographic data.

Inferential Statistics

Two methods of quantitative analysis were conducted to analyze the study questions, multiple regression analysis and Spearman's correlation coefficient. A standard, simultaneous entry, multiple regression analysis was used to analyze question one. The data analysis plan included two independent or predictor variables (student perception of faculty caring and students' cultural identification with faculty) and one dependent variable—students' desire to stay in a program. No reverse coding or dummy variables were needed for data transformation. The student perception of faculty caring variable was constructed by summing the scores of the CFS-CF items 1-10. Both the students' desire to stay in a program and students' cultural identification with their faculty were continuous variables that did not need further construction.

The second question was analyzed using a Spearman's correlation coefficient to determine the strength and direction of the relationship between the dependent variable, each individual CFS-CF statement, and the independent variable, a students' cultural identification with faculty. Because the dependent variable was measured at the ordinal level, a Spearman's correlation coefficient was the nonparametric alternative to the Pearson correlation coefficient, which could be used for ordinal, interval, or ratio level data (Plichta & Kelvin, 2013). Although the Pearson correlation is sometimes used for ordinal data, it might lead to an incorrect conclusion (Plichta & Kelvin, 2013). Any incomplete responses were not analyzed and no reverse coding or dummy variables were needed.

Inferential Analysis—Question One

Assumptions of Multiple Regression Analysis

After determining the reliability and completing an item analysis of the CFS-CF scale, the assumptions of multiple regression analysis were assessed. Four primary assumptions must

be met when using multiple regression: normal distribution, homoscedasticity, linearity, and absence of multicollinearity (Plichta & Kelvin, 2013). Additionally, the data were assessed for outliers since multiple regression is sensitive to highs and lows. If any of the assumptions were not met, data transformations could be attempted.

Normal Distribution. In a linear regression analysis, the dependent variable should be roughly normally distributed and the independent variables must be normally distributed (Plichta & Kelvin, 2013). If the dependent variable is normally distributed, the analysis can be run using 20 responses but if it is not normally distributed, a greater number of responses are needed to complete the analysis (Grande, 2015). This assumption was assessed analytically and graphically. To assess analytically, the Kolmogorov-Smirnov test and the Shapiro-Wilk test were used; a non-statistically significant result was needed. Looking at the quantile-quantile (Q-Q) plot, the assumption was assessed graphically. The closer the points were to the Q-Q plot line, the more normally distributed the data were (DATAtab, 2021).

Homoscedasticity. The variance of the residuals must be constant across the predicted values (DATAtab, 2021). When checking for homoscedasticity, the dependent variable was plotted on the X axis and the error variance was plotted on the Y axis. The resulting distribution should be roughly rectangular in shape. If the data were grouped closer to the X axis on one side of the plot and farther away from the X axis on the other side of the plot, heteroscedasticity was present (DATAtab, 2021). When heteroscedasticity occurred, the cases with the greater error variance from the X axis had a greater influence than cases plotted near the X axis (Statistics Solutions, 2022).

Linearity. There must be a linear relationship between the dependent and independent variables when using a linear regression model (DATAtab, 2021). If there is no linear

relationship, the coefficients of the regression model cannot be interpreted meaningfully (DATAtab, 2021). Linearity was assessed graphically by observing the points on a scatter plot and a P-P plot of regression standardized residual to determine that the data points lay close to the line of best fit.

Multicollinearity. Multicollinearity is present when two or more of the predictor variables are strongly correlated (Gray et al., 2017). When multicollinearity is present, the effect of individual variables cannot be clearly separated (DATAtab, 2021). Although multicollinearity does not affect predictive power, it does lead to lack of predictive validity; the amount of variance of each independent variable is falsely inflated (Gray et al., 2017). The effects of multicollinearity are minimized by determining the correlation between variables before performing the regression analysis (Gray et al., 2017). The assumption of multicollinearity was assessed by analyzing the variance inflation factor and tolerance (Statistics Solutions, 2022).

Outliers. Multiple regression analysis is sensitive to high and low outliers. When outliers are included in the model, they exert an undue influence on the analysis (Pett, 2016). In SPSS, cases that had standardized residuals greater than $\pm$ 3 standard deviations were identified using casewise diagnostics (Laerd Statistics, 2023a). Highlighted cases were analyzed to determine if they exhibited high leverage or undue influence (Laerd Statistics, 2023a).

Results of the Assumption Testing

The data met three of the five assumptions for a multilinear regression analysis. Linearity was assessed graphically by observing the points on a scatter plot and a P-P plot of regression standardized residual to determine that the data points lay close to the line of best fit. The partial regression plots demonstrated a somewhat linear relationship between the dependent variables and the two independent variables. The assumption of multicollinearity was assessed and

satisfied by observing a tolerance value that was greater than 0.1 and a variance inflation factor of less than 10 (Laerd Statistics, 2023a). Six cases were identified as outliers in the casewise diagnostics, which was confirmed by identifying the studentized deleted residuals of $\pm$ 3 standard deviations for each of the identified cases (Laerd Statistics, 2023a). All six cases had leverage values less than 0.2, which was considered safe, and there were no Cook's Distance values greater than 1.0 so none of the cases exhibited undue influence (Laerd Statistics, 2023a). Therefore, all six cases were kept for analysis.

The assumptions of homoscedasticity and normality were not met. The data demonstrated heteroscedasticity as observed with the spread of the residuals decreasing as they moved along the predicted values axis. Additionally, the data did not meet the assumption of normality that was apparent since the histogram appeared skewed for the dependent variable. Furthermore, lack of normality was validated graphically by observing that the values were not closely aligned along the diagonal line on the normal Q-Q Plot. Analytical analysis was also conducted with the Kolmogorov-Smirnov and Shapiro-Wilks tests, which demonstrated a significance of < .001, indicating lack of normality.

Because the data did not display normality, transformations were attempted in SPSS. The attempted transformations did not bring the data into alignment; therefore, a standard multiple regression analysis could not be completed with the data set. An alternative inferential statistical test was run that complemented the data collected. This is discussed in Chapter IV:Results.

Inferential Analysis: Question Two

Assumptions of Spearman Correlation Coefficient

Four primary assumptions must be met when using Spearman correlation coefficient (Plichta & Kelvin, 2013). First, the participants must come from an independent random sample

(Plichta & Kelvin, 2013). This assumption was met with the data collection plan. Additionally, the analysis method can only be used when two variables are being compared (Plichta & Kelvin, 2013). By running the data analysis individually with each statement, this assumption was met. Furthermore, the variables being analyzed must be of ordinal, interval, or ratio measurement level (Plichta & Kelvin, 2013). To analyze this study question, the dependent variable was ordinal and the independent variable was interval. Lastly, a monotonic relationship must exist between the independent and dependent variables (Plichta & Kelvin, 2013). A monotonic relationship is when the value of one variable increases as the value of another variable increases or the value decreases as the value of another variable decreases (Grande, 2016). The data points did not need to precisely plot to a linear line though. To assess for a monotonic relationship, a scatter plot of the dependent variable and each independent variable was observed (Grande, 2016). In contrast to multiple regression analysis, outliers did not have a major impact when analyzing data using Spearman correlation coefficient (Plichta & Kelvin, 2013).

Analysis of Question Two Using Spearman's Correlation Coefficient

After verifying the assumptions, the researcher analyzed question two using Spearman's correlation coefficient. Statistical significance was determined using an α-level of .05 and a two-tailed test. To determine that the groups were correlated, the critical value for Spearman's rho needed to be exceeded. The test was run 10 times, once for each CFS-CF statement item.

Summary

The purpose of this study was to empirically analyze the extent to which prelicensure nursing students' desire to stay in their program of study was explained by students' cultural identification with their nursing faculty and the students' perception of faculty caring. Further

analysis determined if there was a statistically significant relationship between students' cultural identification with their nursing faculty and each individual caritas process statement. This chapter summarized the methods used in this study including the plan for data collection and analysis. By identifying the extent to which the study variables influenced students' desire to stay in their program, resources could be directed to have a positive impact on student success.

CHAPTER IV

RESULTS

The purpose of this study was to empirically analyze the extent to which prelicensure nursing student's desire to stay in their program of study is explained by a student's cultural identification with their nursing faculty and the student's perception of faculty caring. This chapter presents the data analysis and examines the results of the statistical procedures. First, a preliminary analysis including a description of the study sample and reliability of the CFS-CF scale is presented. Additionally, the assumption testing and results for each statistical procedure are described. Multinomial logistic regression and Spearman's correlation were used to evaluate the following research questions and hypotheses:

Q1 To what extent do prelicensure nursing students' perception of faculty caring and students' cultural identification with their nursing faculty, predict students' desire to persist in their program?

H1 There will be no statistically significant relationship between prelicensure nursing students' perception of faculty caring, student's cultural identification with their nursing faculty, and students' desire to stay in their program.

Q2 What is the relationship between prelicensure students' cultural identification with their nursing faculty and student agreement with individual Caritas Process statements?

H2 There is no statistically significant relationship between prelicensure students' cultural identification with their nursing faculty and student agreement with individual Caritas Process statements.

Description of the Sample

A convenience sample was solicited from three prelicensure baccalaureate programs in differing geographic areas of the United States to increase sample diversity. Schools were

located in the upper Midwest, Southwest, and Western regions. Qualtrics responses were collected from 285 participants. Five responses were deleted because the participants did not answer the visual analogue question measuring the variable ‘desire to continue’ and/or ‘identify with faculty.’ All participants completely answered the 10-item CFS-CF scale. The final sample consisted of 280 participants who were 18 years or older and had completed at least one semester of their nursing program. Table 6 presents the demographic profile of the respondents.

Table 6

Demographic Profile of Respondents

Characteristic	Frequency *n*	Percentage %
Geographic Location		
Upper Midwest	119	42.5
West	86	30.7
Southwest	75	26.8
Semesters Completed		
1 semester	71	25.4
2 semesters	62	22.1
3 semesters	59	21.1
4 semesters	25	8.9
5 semesters	15	5.4
6 semesters	24	8.6
7 semesters	9	3.2
8 or more semesters	15	5.4
Age		
18-25 years	251	89.6
26-35 years	24	8.6
36-45 years	5	1.8
46-55 years	0	0
56 years and above	0	0

Table 6 Continued

Characteristic	Frequency *n*	Percentage %
Gender		
I do not wish to answer	5	1.8
Female	251	89.6
Gender non-binary	4	1.4
Male	19	6.8
Transgender, female	0	0
Transgender, male	1	0.4
Other, prefer to self-describe	0	0
Sexual Orientation		
I do not wish to answer	16	5.7
Asexual	6	2.1
Bisexual	20	7.1
Gay	4	1.4
Heterosexual or straight	219	78.2
Lesbian	2	0.7
Pansexual	5	1.8
Queer	8	2.9
Other, prefer to self-describe	0	0
Race/Ethnicity		
I do not wish to answer	13	4.6
American Indian or Alaska Native	1	0.4
Asian	65	23.2
Black or African American	15	5.4
Hispanic or Latinx	40	14.3
Native Hawaiian or another Pacific Islander	1	0.4
White or Caucasian	110	39.3
Multi-race/ethnicity	30	10.7
Other, prefer to self-describe	5	1.8
First Generation College Student		
I do not wish to answer	7	2.5
Yes	108	38.6
No	165	58.9
English Spoken at Home		
I do not wish to answer	4	1.4
Yes	208	74.3
No	68	24.3

Table 6 Continued

Characteristic	Frequency *n*	Percentage %
Born Outside of the United States		
I do not wish to answer	4	1.4
Yes	46	16.4
No	230	82.1
Parent(s) Born Outside of the United States		
I do not wish to answer	4	1.4
Yes	132	47.1
No	144	51.4

Note. $n = 280$

Preliminary Analysis

Reliability and Item Analysis

The variable of student perception of faculty caring was measured using the CFS-CF scale. The 10-item tool demonstrated a high level of internal consistency as determined by a Cronbach's alpha of 0.95. The corrected item-total correlations ranged from .68 to .84. No items demonstrated an increased Cronbach's alpha if item deleted was higher than the total Cronbach's alpha; therefore, no items were deleted from the scale prior to data analysis.

Assumptions

Question 1

Assumption tests were attempted for alternate statistical procedures because the dependent variable did not display the normality needed to use a multiple regression analysis. The continuous data were therefore transformed into an ordinal variable with five categories (slightly disagree [20-39], neutral [40-59], slightly agree [60-79], agree [80-99], and strongly agree [100]). No participants responded between 0-19 on the visual analogue scale for this survey item. The assumptions for an ordinal logistic regression were tested but the data did not

meet the assumption of proportional odds as evidenced by a significant value in the test of parallel lines. Since meeting this assumption is fundamental to use an ordinal logistic regression model (Laerd Statistics, 2023b), a multinomial logistic regression model was attempted.

Six assumptions were assessed to use a multinomial logistic regression. The first three assumptions were met with the data collection plan: the dependent variable was measured at the nominal or ordinal level with mutually exclusive and exhaustive categories; one or more independent variables were measured at the continuous, ordinal, or nominal level; and there was independence of observations (Laerd Statistics, 2023c). Additionally, to use a multinomial logistic regression model, there should be no multicollinearity of the independent variables; there should be no outliers, high leverage values, or influential points; and a linear relationship exists between the independent variables and the logit transformation of the dependent variable (Laerd Statistics, 2023c). The assumption of no multicollinearity was met as evidenced by a Pearson's correlation less than .70 and greater than -.70 (r = .35). Five cases were identified as outliers by detecting cases with a studentized deleted residuals of $\pm$ 3 standard deviations (Laerd Statistics, 2023a). All five cases had leverage values less than 0.2, which was considered safe, and there were no Cook's Distance values greater than 1 so none of the cases exhibited undue influence (Laerd Statistics, 2023a). Therefore, all five cases were kept for analysis. The assumption of linearity was assessed using the Box-Tidwell test, which required transformations of the model variables.

A multistep process was used to conduct the Box-Tidwell test to assess for linearity. First, the dependent variable 'desire to continue' was converted into four dichotomous variables, i.e., belonging in the slightly disagree (20-39) category or belonging in the referent category (strongly agree [100]). The process was repeated for the remaining dependent variables (neutral,

slightly agree, and agree) compared to the referent category. Next, the independent variables were transformed into their natural logs and an interaction term was created. Finally, the Box-Tidwell test was completed four times to assess linearity of the transformed independent variables' interaction term compared to the four converted dichotomous dependent variables. A nonsignificant finding indicated the assumption of linearity was met. A linear relationship was found for the CFS-CF interaction term and all dependent variable groups. For the identify with faculty interaction term, a linear relationship was found for the 'slightly disagree' dependent variable group but not for the three remaining groups. Table 7 presents the significance values for the Box-Tidwell test for linearity.

Table 7

Significance Values for the Box-Tidwell Test for Linearity

Desire to Continue	CFS-CF interaction term (*p*)	Identify with Faculty interaction term (*p*)
Slightly Disagree (20-39)	.328	.738
Neutral (40-59)	.493	.043
Slightly Agree (60-79)	.512	.004
Agree (80-99)	.851	.014

Since the identify with faculty interaction term failed the assumption of linearity, a Bonferroni correction was applied. Tabachnick and Fidell (2014) stated that the *p*-value at which statistical significance was accepted could be divided by the total number of all the terms, including the constant, used in the model. Since there were five terms in the model, the new acceptable level for statistical significance was $p < .01$. The assumption of linearity was still not met for the identify with faculty interaction term so additional transformations were attempted.

Transformations can be applied to the independent variables that do not meet the assumption of linearity to attempt to create a linear relationship (Laerd Statistics, 2023d). Multiple power transformations were attempted on the identify with faculty variable and an exponential power transformation of the variable (ExpIdentify) was found to meet the assumption of linearity. Table 8 illustrates the exponential power transformation significance levels. Because all assumptions of a multinomial logistic regression were met, statistical analysis using this model was completed.

Table 8

Establishing Linearity with an Exponential Power Transformation

Desire to Continue	CFS-CF interaction term (*p*)	ExpIdentify with Faculty interaction term (*p*)
Slightly Disagree (20-39)	.423	.833
Neutral (40-59)	.848	.873
Slightly Agree (60-79)	.728	.619
Agree (80-99)	.771	.115

Question 2

Spearman's correlation was used to analyze the strength and direction of the relationship between each individual CFS-CF item and students' cultural identification with faculty. Four assumptions were evaluated prior to data analysis for Research Question 2. The first three assumptions were met by the study design. This included that participants were from an independent random sample, only two variables were being compared, and the variables were ordinal, interval, or ratio measurement level.

The final assumption was that a monotonic relationship existed between the two variables. Scatterplots of the two variables were visually assessed to determine if this assumption was met. Analysis was repeated for each of the 10 individual CFS-CF statements. A monotonic relationship was found among all CFS-CF statements and students' cultural identification with faculty.

Results

Question 1

Model Fit and Predictive Strength

The model fitness was assessed using the chi-square statistic. A significant relationship between students' desire to continue in a program and the predictor variables was found (84.29, $p < .001$). Additionally, the Pearson and deviance statistics tests demonstrated the model was a good fit because the results were not statistically significant ($p = 1.0$). Two pseudo R-square measures were used to assess the variance in the model. The Cox and Snell (.26) and Nagelkerke (.29) demonstrated that the model accounted for 26% to 29% of the variance, respectively. The likelihood ratio test indicated that the predictors, faculty caring ($p < .001$) and ExpIdentify ($p < .001$), significantly contributed to the final model.

Model Interpretation

Because the model demonstrated good fit and predictive strength, a multinomial logistic regression was performed to determine the relationship between the predictor variables and membership in five desire to continue outcome categories (somewhat disagree, neutral, somewhat agree, agree, and strongly agree). No participants indicated a response that would fall in the disagree or strongly disagree categories. Table 9 presents the category frequency distribution. For a one unit increase in the CFS-CF score, the relative risk of belonging to another

outcome category compared to belonging to the strongly agree outcome category demonstrated a statistically significant decrease for three outcome categories (somewhat agree [*OR* = 0.94, *p* = .01], neutral [*OR* = 0.89, *p* < .001], and somewhat disagree [*OR* = 0.91, *p* = .004]) given the other variables in the model were held constant. For a one unit increase in the ExpIdentify variable, statistical significance was found for the relative risk of belonging to the agree outcome category compared to the strongly agree outcome category (*OR* = 1.00, *p* < .001) given the other variables in the model were held constant. Table 10 provides the multinomial logistic regression results for all model variables.

Table 9

Outcome Category Frequency

Response Range[a]	Outcome Category	*n*	%
0-19	Disagree/Strongly disagree		
20-39	Somewhat disagree	7	2.5
40-59	Neutral	10	3.6
60-79	Somewhat agree	23	8.2
80-99	Agree	86	30.7
100	Strongly agree	154	55.0

[a]Response to item, “I want to continue in my current nursing program.”

Table 10

Multinomial Logistic Regression Model Results

Outcome Category[a]	Predictor	*B*	*SE*	Wald	*p*	*OR*	95% CI	
							LL	*UL*
Somewhat Disagree	ExpIdentify	0.00	0.00	0.26	.613	1.00	1.00	1.00
	Caring	-0.09	0.03	8.44	.004	0.91	0.85	0.97
Neutral	ExpIdentify	0.00	0.00	0.98	.321	1.00	1.00	1.00
	Caring	-0.12	0.03	11.96	<.001	0.89	0.83	0.95
Somewhat Agree	ExpIdentify	0.00	0.00	0.46	.496	1.00	1.00	1.00
	Caring	-0.06	0.02	6.65	.010	0.94	0.90	0.98
Agree	ExpIdentify	0.00	0.00	12.10	<.001	1.00	1.00	1.00
	Caring	-0.03	0.02	3.29	.070	0.97	0.95	1.00

[a]The reference category is strongly agree.

Question 2

A statistically significant positive correlation with a small effect size was found among each CFS-CF statement and students' cultural identification with faculty. Statistical significance was determined using an α-level of .05 and a two-tailed test. Table 11 presents the Spearman's correlation coefficients for each CFS-CF statement.

Table 11

Spearman's Correlation Analysis

CFS-CF Statement	Correlation Coefficient	*p*
Item 1	.29	<.001
Item 2	.30	<.001
Item 3	.35	<.001
Item 4	.25	<.001
Item 5	.38	<.001
Item 6	.24	<.001
Item 7	.23	<.001
Item 8	.35	<.001
Item 9	.32	<.001
Item 10	.31	<.001

Summary

This chapter presented the results of the statistical analysis of data used to answer two research questions and demographic data were presented to describe the study sample. Reliability testing for the CFS-CF scale demonstrated a high level of internal consistency. A multinomial logistic regression was completed for Research Question 1 and the assumption testing and results were described. Research Question 2 was answered using a Spearman's coefficient and the assumptions and results were also presented. Findings in this chapter are discussed in Chapter V: Discussion including a discussion of the study results, limitations, and recommendations for future research.

CHAPTER V

DISCUSSION AND CONCLUSION

Nurse educators must identify strategies to support diverse student populations to promote retention and successful program completion for all students but the factors that support student retention are complex. The purpose of this study was to empirically analyze the extent to which prelicensure nursing students' desire to stay in their program of study is explained by students' cultural identification with their nursing faculty and the students' perception of faculty caring. The following research questions and hypotheses guided this study:

Q1 To what extent do prelicensure nursing students' perception of faculty caring and students' cultural identification with their nursing faculty, predict students' desire to persist in their program?

H1 There will be no statistically significant relationship between prelicensure nursing students' perception of faculty caring, student's cultural identification with their nursing faculty, and students' desire to stay in their program.

Q2 What is the relationship between prelicensure students' cultural identification with their nursing faculty and student agreement with individual caritas process statements?

H2 There is no statistically significant relationship between prelicensure students' cultural identification with their nursing faculty and student agreement with individual Caritas Process statements.

This chapter discusses the findings presented in Chapter IV, recommendations for nursing education, and limitations of the study. Additionally, recommendations for future research are proposed. By identifying the extent to which these variables influenced student desire to stay in a program, resources could be directed to have a positive impact on student success.

Discussion of Findings

Demographic Representation

At least 25% of the sample originated from each of the institutions surveyed. Most participants were similarly distributed among having completed one, two, or three semesters of their nursing program. Because one of the three programs was an accelerated nursing curriculum and the number of semesters to complete each program was not known, this result was not surprising.

The study sample included a racially/ethnically diverse representation of prelicensure nursing students. A greater representation identified as Asian (23.2%) and Hispanic (14.3%) than reported in the 2020 NLN (2021) biennial survey of enrollment in basic RN programs that stated 4.7% and 11% respectfully. Additionally, 10.7% of study respondents identified as multi-race/ethnicity, which was not reported in the NLN biennial survey. The number of students in the study sample who identified as American Indian/Alaska native (0.4%) was comparable to those who reported in the NLN biennial survey data (0.5%) but the percentage of students who identified as Black/African American (5.4%) was less than those who reported in the NLN survey (11.2%). The reason for a decreased response rate by students who identified as Black/African American is unknown but it might have been due to decreased representation at the schools surveyed or non-response bias. Greater representation of students who identified as Asian or Hispanic was expected because all three schools were categorized as either a Hispanic or Asian American and Native American Pacific Islander serving institution. Similarly, 38.6% identified as first-generation college students, which could be anticipated from minority serving schools. Almost half (47.1%) of the sample had at least one parent who was born outside of the United States.

Gender was not proportionally represented in the study sample. Male students comprised only 6.8% of the study respondents. Nationally, the enrollment of male nursing students remained constant at 13% in 2018 and 2020 (NLN, 2021) but because the majority of study respondents attended a women's university (42.5%), this result was expected.

The sample was comprised of mostly younger students; approximately 90% of respondents were between 18 and 25 years of age. One of the three survey sites included students who were second degree BSN students but most respondents were enrolled in a traditional BSN program, which might be more likely to attract a younger postsecondary population.

There was diverse representation in the sample in terms of sexual orientation. The majority of the sample identified as heterosexual/straight. The sample included 21.8% of respondents who did not identify as heterosexual/straight but there was no strong representation from any other sexual orientation group.

The respondents were able to record whether they were born in the United States and the language spoken at home. A significant percentage of the respondents were born outside of the United States (16.4%). In addition, English was not the primary language spoken at home for almost a quarter of the sample (24.3%).

Missing data were minimal for the survey responses. Of the 285 submitted surveys, five responses were deleted due to non-completion of the two items that measured the variables 'desire to continue' and/or 'identify with faculty.' Three of the five respondents completed the demographic items. These three respondents were female with English spoken in the home. One was a first-generation college student, two identified as heterosexual and one identified as asexual, and their race/ethnicity varied (Asian, Caucasian, and Hispanic). None were born outside of the United States but two of the three respondents had a parent born outside of the

country. Although these demographic characteristics were similar to those respondents whose data were included in the study, one difference noted was the CFS-CF sum was lower compared to the majority of the respondents with complete data (range 39-66, $M = 47$).

Research Question One

This study found that cultural identification with faculty and student perception of faculty caring both significantly contributed to the model. Previous studies did not assess the contributions of each variable together though. Cultural identification with faculty and faculty caring is discussed individually, followed by the contributing influence of both variables. These findings supported the conceptual model proposed for this study.

Cultural identification with faculty influenced students' desire to stay in a program. Previous research found that students felt alienated and isolated based on race (Coleman, 2008; Evans, 2008; France et al., 2004). In an environment that included few faculty and peers who identified as being of minority status, students identified difficulty relating to others (Evans, 2013). Participants noted it was not that the faculty were uncaring, it was they were not even aware these feelings of isolation existed (Evans, 2008). In contrast though, in a qualitative study by Diefenbeck et al. (2016), participants who identified as African American or Hispanic stated that faculty did not seem to care as they would confuse their name with the name of other underrepresented students. Feelings of isolation and a lack of support impacted student success. Gardner (2005) found that students who felt alone would be more likely to drop out of a program. Students longed to know that faculty understood and supported them and if faculty acknowledged minority students' challenges, they would be more likely to persevere (Gardner, 2005). This study supported previous research that found increased cultural identification with faculty was needed to promote student success (Amaro et al., 2006; Bond et al., 2008; Coleman,

2008; Diefenbeck et al., 2016; Evans, 2008; France et al., 2004; Martin & Kipling, 2006; Mills-Wisneski, 2005; Petges & Sabio, 2020; Powers et al., 2018; Rivera-Goba & Nieto, 2007; Villarruel et al., 2001; Weaver, 2001).

Similar to previous research, this study found that student perception of faculty caring impacted students' desire to stay in a program. Shelton (2003) found a significant difference in the total perceived faculty support between students who persisted and those who voluntarily withdrew or were required to withdraw. Similarly, Crary (2013) found intrinsic motivation was positively correlated with the support of theory and clinical educators. These findings were consistent with the findings of Hoeve et al. (2017). A theme emerged in qualitative research that lack of program organization and support from clinical mentors influenced students' desire to stay in a program (Hoeve et al., 2017). The findings of this study and previous research highlighted the impact of faculty caring on student retention.

This study found both cultural identification with faculty and faculty caring significantly contributed to the model, but student perception of faculty caring demonstrated a stronger influence. This study supported the finding by Amaro et al. (2006) that faculty did not have to be of the same culture to be understanding mentors who were available and encouraging. Although students had a preference for faculty who shared their culture and experience, there were not enough non-White faculty to individually mentor all non-White students (Coleman, 2008). Similarly, Dapremont (2011) found Black students in a predominantly White nursing program stated the encouragement and support of faculty promoted a desire to stay in the program. Several participants considered withdrawing from the program and chose to stay due to faculty caring (Dapremont, 2011). Researchers have concluded that increased cultural representation of faculty was needed to promote student success (Amaro et al., 2006; Bond et al., 2008; Coleman,

2008; Diefenbeck et al., 2016; Evans, 2008; France et al., 2004; Martin & Kipling, 2006; Mills-Wisneski, 2005; Petges & Sabio, 2020; Powers et al., 2018; Rivera-Goba & Nieto, 2007; Villarruel et al., 2001; Weaver, 2001) but as found in this study, faculty did not have to be of the same culture to be understanding mentors who are available and encouraging. Caring could transcend cultural identification to promote student retention.

The conceptual model proposed for this study was supported by the findings. Although faculty and students were each influenced by their cultural lens, the transpersonal caring moment that occurred when both individuals entered a faculty-student caring relationship radiated and influenced student perceptions. As a student of Leininger, Watson's (2008) THC honored each person's worldview. Watson's work stated that caring allowed another to choose the best action for themselves. Cultural identity could inform what an individual chose as their best action. Additionally, the THC stated that transpersonal caring included being in authentic relationships, which was influenced by consciousness, intentionality, and presence. Specifically, the second caritas process stated being authentically present included honoring the deep belief system and subjective world of self/other. This was the cultural lens each individual brought to the relationship and by recognizing each other's worldview, cultural congruence could be integrated into the conscious, intentional presence experienced with another. In the THC, one seeks to recognize and connect with another's inner being. To do so, one must honor the influences of the other's cultural lens.

Research Question Two

Prelicensure students' cultural identification with their nursing faculty was positively related to students' agreement with individual caritas process statements. The resulting correlations were in the weak to moderate range (e.g., .23-38). These findings were encouraging.

Respondents commented that the majority of their faculty were White. Therefore, it could be assumed there was a large discrepancy between the cultural identification of this diverse study sample and that of the faculty. A weak to moderate positive correlation indicated faculty caring was often perceived by students regardless of student cultural identification with faculty.

Six caritas process statements demonstrated a medium strength, positive correlation compared to culturally identifying with faculty. The caritas process statement with the strongest correlation stated, “Faculty in this program encourage me to practice my own, individual, spiritual beliefs as part of my personal growth within my education and learning” ($r_s = .38$, $p < .001$). After completing the CFS-CF statements, students had the opportunity to describe attitudes, behaviors, and actions that led to their answers. One student who identified as a Caucasian, first generation student stated, “My professors have had issues with me missing class for a funeral and spiritual celebrations.” Another respondent who identified as a Caucasian student who was born outside the United States stated,

> Faculty are so supportive and encouraging and really want to see us thrive, but we don’t talk much about the spiritual side of nursing as far as our own beliefs we just talk about helping the patient with theirs. I would definitely enjoy more opportunities to get to dive into more of what that would look like in nursing practice.

These student statements demonstrated the importance of honoring a student’s spirituality by accommodating religious observances and discussing spirituality in nursing practice.

Two caritas process statements ranked equally as the next strongest correlations ($r_s = .35$, $p < .001$). The first statement was “Faculty in this program respect my hope and belief system as part of my educational experience” One student who identified as a Hispanic, first-generation student who was born outside of the United States stated, “Faculty are very supportive of each

student in their class. I feel comfortable sharing my own experiences and beliefs with them, knowing they will be respected but I have never been asked about my spiritual beliefs." Another student who identified as an Asian, bisexual student stated, "I believe the faculty at my nursing program are extremely kind and encouraging and accepting of different cultures and beliefs. But I have come across a single member who I believe was not kind and treated a few students differently." Similarly, one respondent who identified as a Caucasian female stated, "I feel that the biases and opinions in this program are strong and if you do not have the same opinions/beliefs you are in the wrong." Students voiced experiencing faculty support and respect but the findings suggested that if you did not culturally identify with faculty, you were less likely to experience respect of one's hope and belief system. Respecting students' hope and belief systems could promote positive student outcomes. In a meta synthesis study, Beck (2001) found one's self-worth and self-esteem increased when individuals felt valued and respected. Coleman (2008) furthered our understanding in a qualitative study exploring the lived experiences of Black and African American students in a predominantly White prelicensure nursing program and suggested that inner strength and resiliency resulting from ancestral strength and cultural spirituality could help students overcome adversity.

The statement "Faculty in this program have created an environment of learning that recognizes the connections between my mind, body, and spirit" also demonstrated a significant medium strength, positive correlation ($r_s = .35$, $p < .001$). One student who identified as an Asian student born outside of the United States stated, "I do not think all faculty recognize the need to connect our bodies with our mind and spirit as the class set up does not promote frequent movement of our bodies to allow for optimal health." Another respondent who identified as a multi-ethnicity, first-generation student stated, "The material does not cover any holistic

practices that would apply to us as students." Previous studies presented in the literature review did not explore the relationship between cultural identification with faculty or desire to stay in a program in relationship to faculty creating an environment that recognized the mind, body, spirit connection. Watson's (2022) THC embraced mind-body-spirit caring though. This finding revealed an area for further research investigation.

The weakest correlation was found between cultural identification and the statement "Faculty in this program have established a helping and trusting relationship with me" (r_s =.23, p < .001). Students agreed with this statement regardless of their cultural identification with faculty. The element of establishing a helping, trusting relationship was comparable to a commonplace definition of caring: "feeling or showing concern for or kindness to others" (Merriam Webster, 2020, para. 1). Many nurses aspire to demonstrate caring in their relationships; the NLN called for caring to be a core value in nursing education in 1990 (Tanner, 1990). Therefore, it was not surprising that this common element of caring would be related to cultural identification with faculty.

However, statements by students in this study demonstrated that while many faculty established helpful and trusting relationships, not all students had the same experiences. Some student responses noted inconsistencies between faculty and some students felt less supported. One student who identified as an Asian, first-generation student stated, "Some professors are great and very helpful. Some have tunnel vision and don't understand people come from different backgrounds with different education levels. I don't have much experience and I've felt like I cannot succeed from some professors." Another respondent who identified as a Caucasian, first-generation student stated, "They don't understand that students learn differently and don't have the resources needed for students that need extra independent help from them." These

statements echoed previous qualitative research findings. In a study by Weaver (2001), respondents voiced that faculty did not understand the struggle of native peoples and were not prepared to help them. Similarly, in a study by Coleman (2008), participants who identified as Black or African American voiced difficulty finding support systems and building relationships with faculty because White faculty displayed uneasiness and discomfort with them. Thus, these negative experiences of students likely balanced out the positive statements and contributed to the weakest correlation coefficient.

The three caritas process statements with the highest correlation to cultural identification with faculty all related to spirituality or belief systems. The nursing discipline's understanding of caring has evolved from defining caring as helping and supporting individuals to a broader, more holistic awareness. This study identified a need for faculty to respect and encourage students' spirituality and beliefs within the educational experience and create an environment that fostered and promoted a mind-body-spirit connection.

Recommendations for Nursing Education

Research about cultural identification and caring is significant for both nurse educators and prelicensure nursing students. Attrition is greater among students with diverse racial, ethnic, and cultural backgrounds (Barbé et al., 2018; Harris et al., 2014; Veal et al., 2012). This study found a significant relationship between cultural identification with faculty and student desire to stay in a program; however, this study demonstrated that student perception of faculty caring had a greater influence. Nurse educators could identify caring strategies to support diverse student populations to promote retention and successful program completion for all students.

The NLN (2016) Vision Series statement recommended that nursing programs develop a plan to recruit and retain faculty and students from diverse backgrounds, but faculty do not

currently represent the diversity of the student body. Although the 2022 NLN Biennial Survey demonstrated the proportion of underrepresented students increased by 10.6% since 2020, the proportion of underrepresented fulltime faculty only increased by 0.2% since 2021 (NLN, 2023a). In 2022, 58.6% of students identified as White but 76.4% of fulltime nurse educators reported similarly (NLN, 2023b). A gap existed between the cultural identification of students and faculty. Increasing the diversity of nurse educators could be slow to change because further education is needed for this role, but a place to begin is to increase the diversity of baccalaureate nurse graduates who might go on for graduate degrees and a role as nurse educators. To promote and retain diversity of faculty and students, a welcoming environment must be created and sustained (NLN, 2016). This could be supported by intentionally implementing caring strategies throughout the nursing curriculum.

The NLN (2016) published a call to action, appealing for institutions to create environments where diverse faculty and students could flourish. Comments from this study suggested the nursing curriculum teaches students to respect patient's beliefs and practices but the same considerations are not consistently applied by faculty to students. Continuing education or professional development focused on caring strategies and how to promote positive environments might be helpful for faculty in their efforts to support students. Caring student-faculty relationships could overcome cultural differences. Strategies to promote student perception of faculty caring might have a positive impact on prelicensure nursing student retention and program completion.

Limitations

The generalizability of the findings might be impacted by several sampling factors. A convenience sample was used to ease survey distribution and facilitate data gathering. Because

participants were intentionally solicited from geographically diverse institutions, the sample was not representative of the general population. Although generalizability is greater with multisite studies, coverage bias was apparent because not all geographic locations and cultural characteristics were represented. Voluntary response bias might have occurred, and the study findings might have been influenced by the respondents who chose to complete the survey (Remler & Van Ryzin, 2015). Additionally, nonresponse bias might have occurred. It is not known whether those who did not respond were different than the general population in a way the survey intended to capture (Remler & Van Ryzin, 2015). Survey links might have been distributed to a student distribution list that included graduates who no longer had access to their school email address. Finally, a meaningful response rate for the study survey was not able to be determined.

In addition to sampling limitations, the data collection methods had limitations. The dependent variable ‘desire to stay in a program’ was intended to be measured as a continuous variable. Because the data results were negatively skewed, the data were transformed into an ordinal variable to meet the assumptions needed for statistical analysis. Transforming the data from continuous to ordinal decreased the rigor of measurement for the variable. Furthermore, the independent variable ‘culturally identify with faculty’ did not meet the assumption of linearity. To proceed with statistical analysis, a power transformation was used to establish a linear relationship, but transformations led to difficulty comparing the relationships between transformed and non-transformed variables. Although a pilot study was conducted to evaluate the clarity and validity of the survey items measuring ‘desire to stay in a program’ and ‘culturally identify with faculty,’ multi-item scales to measure both variables might have provided more robust data for analysis.

Recommendations for Future Research

Further research is needed to discover strategies that promote retention and graduation of students who identify as underrepresented. This study found both student perception of faculty caring and cultural identification with faculty significantly contributed to students' desire to stay in a program, but other factors were not measured. Additional variables that might have influenced student retention, including both intrinsic and extrinsic forces, need to be explored.

Motivation and determination to graduate are additional intrinsic variables to consider. Previous studies revealed that motivation and determination promoted student perseverance. Students described the desire for a career (Amaro et al., 2006) and a drive to finish no matter what (Diefenbeck et al., 2016; Rivera-Goba & Nieto, 2007). Some students were determined to give back to others in their ethnic group as a reason to persevere (Bond et al., 2008). Overwhelmingly though, there was a motivation and determination to overcome challenges to improve the quality of their lives (Bond et al., 2008; Diefenbeck et al., 2016; Rivera-Goba & Nieto, 2007). Other intrinsic factors that might affect desire to continue in a program include isolation and belongingness (Evans, 2007; Gardner, 2005). These intrinsic factors and other extrinsic factors present opportunities for further exploration.

Further research is needed on the contribution of extrinsic factors that influence student desire to stay in a program. Shelton (2003) found a significant difference ($F = 19.33$, $p < .001$) in students' perceptions of faculty support with students who persisted through their nursing program perceiving greater support compared to students who voluntarily withdrew or were required to withdraw. In qualitative research by Gardner (2005) and Hoeve et al. (2017), faculty support emerged as themes that impacted student retention. Other themes that emerged included personal circumstances, faculty competence, and the organization of the program (Hoeve et al.,

2017). Furthermore, financial resources including lack of support for tuition, learning resources, and living expenses could impact a student's ability to continue (Barbé et al., 2018; Diefenbeck et al., 2016).

Measuring multiple variables together to determine the contributions of each would extend the current understanding of factors that influence students' desire to stay in a program. Intrinsic motivation was found to be significantly positively correlated with faculty approachability, accessibility, respect, caring, and connectedness (Komarraju et al., 2010). Additionally, Crary (2013) found that intrinsic motivation was positively related to support of theory ($r = .30$, $p < .001$) and clinical faculty ($r = .24$, $p < .01$). An interconnectedness between intrinsic/extrinsic factors and student retention needs to be further explored. By identifying the contribution of influencing factors, strategies to promote student retention could be prioritized and resources could be appropriately allocated.

Conclusion

The diversity and inclusion Vision Series document published by the NLN (2016) included the premise that quality healthcare and diversity are inseparable. This view was echoed in the desired outcomes published in the Future on Nursing 2020-2030 report (NASEM, 2021), which stated that nurses should reflect the characteristics of the people they serve to ensure individuals receive culturally competent and equitable health care. To have a greater impact on addressing health disparities in diverse patient populations, nursing needs to consider who comprises the student and nursing faculty populations (NASEM, 2021). Nursing faculty do not culturally mirror the student body, nor could all forms of diversity be represented in a faculty group. By studying cultural identification with faculty and student perception of faculty caring together, the impact on students' desire to stay in a program could be identified.

This study analyzed the extent to which prelicensure nursing students' desire to stay in their program of study was explained by students' cultural identification with their nursing faculty and students' perception of faculty caring. Findings from this study demonstrated that both cultural identification and faculty caring significantly contributed to students' desire to stay in a program, but perception of caring exhibited a greater influence. Additionally, student cultural identification with faculty was found to be significantly and positively correlated with each of the 10 caritas process statements. The strongest correlation was associated with three statements related to spirituality or belief systems. This finding suggested that if a student did not culturally identify with faculty, they were less likely to experience faculty support of individual spiritual beliefs, respect for one's hope and belief system, or experience an educational environment that recognized the connection between mind-body-spirit.

Findings from this study contributed to the nursing body of knowledge to promote student retention and increase the diversity of prelicensure nursing graduates. This study measured only two variables that influenced students' desire to stay in a program. Therefore, further research is needed to discover the interconnected relationship of additional intrinsic and extrinsic factors. Although student cultural identification with faculty has a statistically significant impact on student desire to stay in a program, caring student-faculty relationships could overcome cultural differences. Strategies to promote student perception of faculty caring could have a positive impact on prelicensure nursing student retention and, consequently, resources could be directed to have a positive impact on student success.

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APPENDIX A

PERMISSION TO USE SUNRISE ENABLER FIGURE

Re: Permission to use Sunrise Enabler figure in dissertation

From: Hiba Wehbe-Alamah <hiba@umich.edu>
Sent: Saturday, October 7, 2023 5:13 AM
To: Elizabeth Cunniff <eacunniff@stkate.edu>
Cc: Cunniff, Elizabeth <cunn7478@bears.unco.edu>; Marilyn McFarland <mmcf@umich.edu>
Subject: Re: Permission to use Sunrise Enabler in figure in dissertation

You are all set Elizabeth, good luck!

Hiba Wehbe-Alamah, PhD, RN, FNP-BC, CTN-A, FTNSS, FAAN
Michigan Distinguished Professor
Professor, School of Nursing
University of Michigan-Flint

> On Fri, Oct 6, 2023 at 10:10 PM Elizabeth Cunniff <cunn7478@bears.unco.edu> wrote:
> Drs. McFarland and Wehbe-Alamah,
>
> Attached is my written request form for permission to use the Sunrise Enabler in my PhD dissertation. Thank you for your consideration and approval.
>
> Respectfully,
>
> **Beth Cunniff, PhDc, RN, CPNP-BC, CNE, AHN-BC**
> **PhD Candidate I UNIVERSITY OF NORTHERN COLORADO**
> **Asst. Professor, Nursing I ST. CATHERINE UNIVERSITY**
> **NLN Jonas Scholar 2022-2023**

Request to Use 2018 Sunrise Enabler

To be submitted to: Dr Marilyn McFarland: mmcf@umich.edu

Dr Hiba Wehbe-Alamah: hiba@umich.edu

Name: Elizabeth Ann Cunniff

Affiliation: [University/other]: University of Northern Colorado

Role: Author/ Researcher/Student in program/Faculty/other: PhD candidate

Contact information: Elizabeth Cunniff

Address: 2004 Randolph Avenue, Saint Paul, MN, 55105 Email: cunn7478@bears.unco.edu

Cell: 651-690-7755

Project title: Student desire to stay in a program: The influence of faculty caring and cultural identification with faculty

Project overview and rationale for request: [one paragraph]: The purpose of this study is to empirically analyze the extent to which prelicensure nursing students' desire to stay in their program of study is explained by students' cultural identification with their nursing faculty and students' perception of faculty caring. To increase diversity among nurses, nursing schools need more diverse graduates from prelicensure nursing programs, but attrition is greater among students with diverse racial, ethnic, and cultural backgrounds (Barbé et al, 2018; Harris et al., 2014; Veal et al., 2012). Nurse educators must identify strategies to support diverse student populations to promote retention and successful program completion for all students. Factors which support student retention are complex, but two variables assessed in this study are a students' cultural identification with their faculty and student perception of faculty caring. By identifying the extent to which these variables influence student desire to stay in a program, resources can be directed which have a positive impact on student success.

I agree to submit an APA reference and a copy of [**or link to**] completed project/dissertation/study or any resulting published articles to Dr Marilyn McFarland and Dr Hiba Wehbe-Alamah upon completion of project/study.

By signing below, I acknowledge that this permission does not allow for edits to the Sunrise Enabler. The Sunrise Enabler is to be depicted as is in any used format (dissertation/article/presentation, etc.). Proper acknowledgement as depicted below will be inserted below the Sunrise Enabler.

Acknowledgment to be inserted below Sunrise Enabler:

Leininger's Sunrise Enabler to discover Culture Care. Used with permission. Source: McFarland, M., and Wehbe-Alamah, H. (2018). *Transcultural Nursing Concepts, Theories, Research, & Practice* (4th edition, p. 47). New York, NY: McGraw-Hill Education. ISBN: 978-0-07-184113-9

*Permission from authors will be granted via email upon receipt of this signed form.

APPENDIX B

CARING FACTOR SURVEY-CARING OF FACULTY

Caring Factor Survey-Caring of Faculty

(J. Nelson, personal communication, June 22, 2021)

Please respond to each of the 10 statements about how you feel regarding the caring behaviors of faculty at your school. The information you provide by completing this survey will help us understand the extent that you, as a student, believe caring has been demonstrated by faculty. Within the theory of caring as proposed by Watson, caring for others occurs in 10 specific ways which are each addressed within this brief survey. We thank you for your time and consideration to respond. If you are unable to respond, we understand and respect your decision.

Please read each statement as it relates to your perception of caring demonstrated by the faculty in your nursing program. For each question, you will be asked to indicate how much you agree or disagree with the statement. There are 7 options for each statement, from "strongly disagree" to "strongly agree." If, for example, you strongly agree with the statement, then indicate in the circle for "strongly agree."

Strongly Disagree	**Disagree**	**Slightly Disagree**	**Neutral**	**Slightly Agree**	**Agree**	**Strongly Agree**
1. O	2. O	3. O	4. O	5. O	6. O	7. O

1. Every day that I am at school, I can see faculty in this program interact with students with kindness.

1. O	2. O	3. O	4. O	5. O	6. O	7. O

2. Faculty in this program engage in creative problem solving with me to meet my individual education needs and requests.

1. O	2. O	3. O	4. O	5. O	6. O	7. O

3. Faculty in this program respect my hope and belief system as part of my educational experience.

1. O	2. O	3. O	4. O	5. O	6. O	7. O

4. When faculty in this program teach me something new, they teach me in a way that I can understand.

1. O	2. O	3. O	4. O	5. O	6. O	7. O

5. Faculty in this program encourage me to practice my own, individual, spiritual beliefs as part of my personal growth within my education and learning.

1. O	2. O	3. O	4. O	5. O	6. O	7. O

6. Faculty in this program respond to me as a whole person, helping to take care of my needs and concerns.

1. O	2. O	3. O	4. O	5. O	6. O	7. O

7. Faculty in this program have established a helping and trusting relationship with me.

1. O	2. O	3. O	4. O	5. O	6. O	7. O

8. Faculty in this program have created an environment of learning that recognizes the connections between my mind, body, and spirit.

1. O	2. O	3. O	4. O	5. O	6. O	7. O

9. I can talk openly and honestly about what I am thinking, because the faculty in this program embrace my thoughts, no matter what my thoughts are.

1. O	2. O	3. O	4. O	5. O	6. O	7. O

10. Faculty in this program are accepting and supportive of my beliefs allowing for me to believe even the impossible can happen.

1. O	2. O	3. O	4. O	5. O	6. O	7. O

11. Please describe the attitude, behaviors and/or actions that led to your answers (optional).

APPENDIX C

VISUAL ANALOGUE SCALES

Visual Analogue Scales

Cultural identification with faculty

I culturally identify with faculty in my nursing program.

|----------|

Strongly Disagree Strongly Agree

Students' desire to stay in a program

I want to continue in my current nursing program.

|----------|

Strongly Disagree Strongly Agree

APPENDIX D

DEMOGRAPHIC QUESTIONS

Demographic Questions

1. How many semesters of your nursing program have you completed?

    1 = 0 semesters
    2 = 1 semester
    3 = 2 semesters
    4 = 3 semesters
    5 = 4 semesters
    6 = 5 semesters
    7 = 6 semesters
    8 = 7 semesters
    9 = 8 or more semesters

2. Age

    1 = 17 years or younger
    2 = 18-25 years
    3 = 26-35 years
    4 = 36-45 years
    5 = 46-55 years
    6 = 56-65 years
    7 = 66 years and above

3. Gender

    1 = I do not wish to answer
    2 = Female
    3 = Gender non-binary
    4 = Male
    5 = Transgender, female
    6 = Transgender, male
    7 = Other, prefer to self-describe: _____

4. Sexual orientation
    1 = I do not wish to answer
    2 = Asexual
    3 = Bisexual
    4 = Gay
    5 = Heterosexual or straight
    6 = Lesbian
    7 = Pansexual
    8 = Queer
    9 = Other, prefer to self-describe: _____

5. Race/Ethnicity
    1 = I do not wish to answer
    2 = American Indian or Alaska Native
    3 = Asian
    4 = Black or African American
    5 = Hispanic or Latinx
    6 = Native Hawaiian or another Pacific Islander
    7 = White or Caucasian
    8 = Multi-race/ethnicity
    9 = Other, prefer to self-describe: _____

6. First-generation college student
    1 = I do not wish to answer
    2 = Yes
    3 = No

7. English is the primary language spoken at home
    1 = I do not wish to answer
    2 = Yes
    3 = No

8. Born outside of the United States
    1 = I do not wish to answer
    2 = Yes
    3 = No

9. Parent(s) born outside of the United States
    1 = I do not wish to answer
    2 = Yes
    3 = No

APPENDIX E

INSTITUTIONAL REVIEW BOARD APPROVAL

UNIVERSITY OF
NORTHERN COLORADO

Institutional Review Board

Date:	04/12/2023
Principal Investigator:	Elizabeth Cunniff
Committee Action:	**IRB EXEMPT DETERMINATION – New Protocol**
Action Date:	04/12/2023
Protocol Number:	2303048548
Protocol Title:	Student desire to stay in a program: The influence of faculty caring and cultural identification with faculty
Expiration Date:	

The University of Northern Colorado Institutional Review Board has reviewed your protocol and determined your project to be exempt under 45 CFR 46.104(d)(701) (702) for research involving

Category 1 (2018): RESEARCH CONDUCTED IN EDUCATIONAL SETTINGS. Research, conducted in established or commonly accepted educational settings, that specifically involves normal educational practices that are not likely to adversely impact students' opportunity to learn required educational content or the assessment of educators who provide instruction. This includes most research on regular and special education instructional strategies, and research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

Category 2 (2018): EDUCATIONAL TESTS, SURVEYS, INTERVIEWS, OR OBSERVATIONS OF PUBLIC BEHAVIOR. Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: (i) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects; (ii) Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation; or (iii) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by 45 CFR 46.111(a)(7).

UNIVERSITY OF
NORTHERN COLORADO

Institutional Review Board

You may begin conducting your research as outlined in your protocol. Your study does not require further review from the IRB, unless changes need to be made to your approved protocol.

As the Principal Investigator (PI), you are still responsible for contacting the UNC IRB office if and when:

- You wish to deviate from the described protocol and would like to formally submit a modification request. Prior IRB approval must be obtained before any changes can be implemented (except to eliminate an immediate hazard to research participants).
- You make changes to the research personnel working on this study (add or drop research staff on this protocol).
- At the end of the study or before you leave The University of Northern Colorado and are no longer a student or employee, to request your protocol be closed. *You cannot continue to reference UNC on any documents (including the informed consent form) or conduct the study under the auspices of UNC if you are no longer a student/employee of this university.
- You have received or have been made aware of any complaints, problems, or adverse events that are related or possibly related to participation in the research.

If you have any questions, please contact the Research Compliance Manager, Nicole Morse, at 970-351-1910 or via e-mail at nicole.morse@unco.edu. Additional information concerning the requirements for the protection of human subjects may be found at the Office of Human Research Protection website - http://hhs.gov/ohrp/ and https://www.unco.edu/research/research-integrity-and-compliance/institutional-review-board/.

Sincerely,

Nicole Morse
Research Compliance Manager

University of Northern Colorado: FWA00000784

APPENDIX F

PERMISSION TO EMAIL STUDENTS

Dear [insert title/role],

Hello, my name is Beth Cunniff, and I am a PhD candidate at the University of Northern Colorado. I am conducting a dissertation study to empirically analyze the extent to which prelicensure nursing students' desire to stay in their program of study is explained by students' cultural identification with their nursing faculty, and students' perception of faculty caring.

To increase diversity among nurses, nursing schools need more diverse graduates from prelicensure nursing programs, but attrition is greater among students with diverse racial, ethnic, and cultural backgrounds (Barbé et al, 2018; Harris et al., 2014; Veal et al., 2012). Nurse educators must identify strategies to support diverse student populations to promote retention and successful program completion for all students.

I am contacting you in hopes that you will grant permission and share the survey with students in your baccalaureate prelicensure program. Attached are copies of the student recruitment letter, informed consent, follow up recruitment letter, and survey questions.

If you agree to allow me to survey students at your institution, please reply to this email to indicate your permission. If you have any questions or concerns, please feel free to call or email me. Thank you for your consideration.

Kind regards,

Beth Cunniff, Ph.D. candidate, RN, CNE
University of Northern Colorado
cunn7478@bears.unco.edu

Attachments:

- Student Recruitment Letter & Informed Consent
- Follow Up Recruitment Letter
- Survey Questions

References

Barbé, T., Kimble, L. P., Bellury, L. M., & Rubenstein, C. (2018). Predicting student attrition using social determinants: Implications for a diverse nursing workforce. *Journal of Professional Nursing, 34*(5), 352-356. https://doi.org/10.1016/j.profnurs.2017.12.006

Harris, R. C., Rosenberg, L., & Grace O'Rourke, M. E. (2014). Addressing the challenges of nursing student attrition. *The Journal of Nursing Education, 53*(1), 31-37. https://doi.org/10.3928/01484834-20131218-03

Veal, J. L., Bull, M. J., & Miller, J. F. (2012). A framework of academic persistence and success for ethnically diverse graduate nursing students. *Nursing Education Perspectives, 33*(5) 322-327. https://doi.org/10.5480/1536-5026-33.5.322

APPENDIX G

STUDENT RECRUITMENT LETTER AND INFORMED CONSENT

CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH

Project Title: Student desire to stay in a program: The influence of faculty caring and cultural identification with faculty

Lead Researchers: Beth Cunniff, Ph.D. candidate, RN, CNE, University of Northern Colorado, cunn7478@bears.unco.edu

Research Advisor: Kathie Records, Ph.D., RN, FAAN, University of Northern Colorado, kathryn.records@unco.edu

Dear Potential Participant,

I am a student at the University of Northern Colorado in the Nursing Education Doctoral Program. As part of my doctoral program, I am conducting a study to examine the influence of faculty caring and cultural identification with faculty, on a students' desire to stay in a program.

If you choose to participate in this study, you will complete a brief (5 minute) online survey. The survey consists of 13 questions and general demographic questions. At the completion of the survey, respondents have the option to include their email address to indicate interest in possible compensation. The first 100 participants who indicate interest will receive a $10 Amazon electronic gift card.

As with any online survey, confidentiality can never be guaranteed, but all electronic data will be stored in secure computer files and destroyed after three years. Results of the study will be presented in aggregated form only.

I do not foresee any risks to you as a result of participation in this study; however, please feel free to email if you have any questions or concerns about this research. Although incentives are only provided for the first 100 respondents, your participation may benefit future students by revealing areas in which student-faculty caring can be improved and thereby improving students desire to stay in their program of study.

Participation is voluntary. You may decide not to participate in this study, and if you begin participation, you may still decide to stop and withdraw at any time.

Having read the above information and having had an opportunity to ask any questions, please complete the following survey if you would like to participate in this research. By

continuing on to the survey, you give your permission to be included in this study as a participant.

Please save or print this page and keep it for future reference. If you have any questions or concerns, please feel free to email me. If you have any concerns about your selection or treatment as a research participant, please contact the Office of Research and Sponsored Programs, University of Northern Colorado, at irb@unco.edu or 970-351-1910.

Thank you for assisting with this important research.

Sincerely,

Beth Cunniff, Ph.D. candidate, RN, CNE
University of Northern Colorado
cunn7478@bears.unco.edu

APPENDIX H

FOLLOW UP STUDENT RECRUITMENT LETTER

Dear student,

Last week, you received a survey related to the influence of faculty caring and cultural identification with faculty on a students' desire to stay in their nursing program.

Thank you to those who have already completed the survey and I appreciate those students who are considering completing the survey.

If you have not already and would like to participate in this study, please complete the survey by clicking on the provided link. The total time to complete the survey is approximately 5 minutes.

At the completion of the survey, respondents have the option to include their email address to indicate interest in possible compensation. The first 100 participants who indicate interest will receive a $10 Amazon electronic gift card.

Thank you in advance for your consideration.

Sincerely,

Beth Cunniff, Ph.D. candidate, RN, CNE
University of Northern Colorado
cunn7478@bears.unco.edu